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HISTORY
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**A HISTORY
OF
ARCHITECTURE
IN ALL COUNTRIES**

**BY
JAMES FERGUSSON**

**D.C.L., F.R.S., M.R.A.S., FELLOW ROYAL INST. BRIT.
ARCHITECTS, ETC.**

NEW EDITION

**EDITED BY R. PHENE SPIERS, F.S.A.
FELLOW ROYAL INST. BRIT. ARCHITECTS**

**WITH NOTES AND ADDITIONS BY
GEORGE KRIEHN**

**SOMETIME INSTRUCTOR IN THE JOHNS HOPKINS UNIVERSITY AND ASSISTANT
PROFESSOR IN THE LELAND STANFORD UNIVERSITY**

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HISTORY OF ARCHITECTURE.

PART II.—CHRISTIAN ARCHITECTURE.

Continued.

BOOK II.

ITALY *Continued.*

CHAPTER VII.

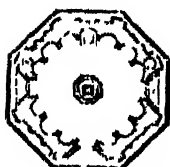
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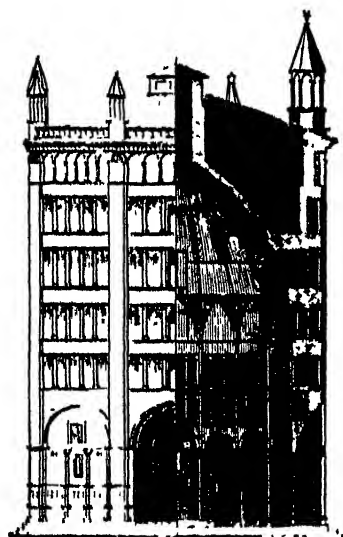
CIRCULAR BUILDINGS.

THERE are very few specimens in Italy of circular or polygonal buildings of any class belonging to the Gothic age. As churches, none are to be expected. Baptisteries had passed out of fashion. One such building, at Parma, commenced in 1196, deserves to be quoted, not certainly for its beauty, but as illustrating those false principles of design shown in every part of every building of this age in Italy. Externally the building is an octagon, six storeys in height, the four upper ones being merely used to conceal a dome, which is covered by a low-pitched wooden roof. The lowest and the highest storeys are solid, the others are galleries supported by little ill-shaped columns. It is probable that this was not the original design of the architect, Antelami. No doubt he intended to conceal the dome, or at all events to cover it, as was the universal practice in Italy; but instead of a more perpendicular wall, as here used, the external outline should have assumed a conical form, which might have rendered it as pleasing

as it is now awkward. We have no instance of a circular building carried out by Italian architects according to their own principles



513. Baptistery, Parma. Scale 100 ft. to 1 in.



514. Baptistery at Parma, half Section, half Elevation. Scale 50 ft. to 1 in.

sufficiently far to enable us to judge what they were capable of in this style, unless perhaps it be the tombs of the Scaligers at Verona. These take the circular or polygonal form appropriate to tombs, but are on so small a scale that they might rather be called crosses than mausolea; and though illustrating all the best principles of Italian design, and evincing an exuberance of exquisite ornament, they can hardly be regarded as important objects of high art. It is only from small buildings like these that we may recover the principles of this art as practised in Italy. Not being, like the Northern styles, a progressive national effort, but generally an individual exertion, if the first architect died during the progress of a larger building, no one knew exactly how he had intended to finish it, and its completion was entrusted to the caprice and fancy of some other man, which he gene-

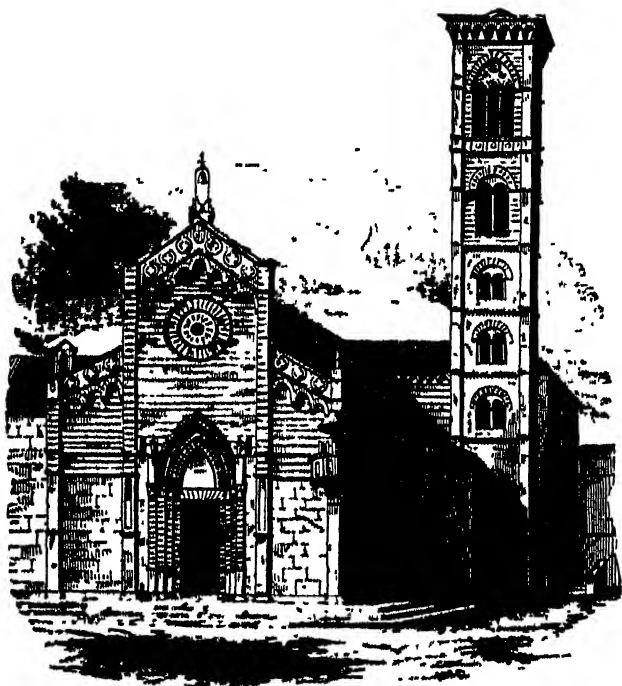
rally indulged, wholly regardless of its incongruity with the work of his predecessor

TOWERS.

The Italians in the age of pointed architecture were hardly more successful in their towers than in their other buildings, except that a tower, from its height, must always be a striking object, and, if both massive and high, cannot fail to have a certain imposing appearance, of which no clumsiness on the part of the architect can deprive it. Such towers as the Asinelli and Garisenda at Bologna possess no more architectural merit than the chimneys of our factories. Most of those subsequently erected were better than these, but still the Italians never caught the true idea of a spire.

Throughout the whole of the Middle Ages they retained their affection for the original rectangular form, making their towers as

broad at the summit as at the base. With very few exceptions, they are without buttresses, or any projection on the angles, to aid in giving them even an appearance of support. In consequence, when a spire was placed on such an edifice it always fitted awkwardly. The art by which a tower was prepared for its termination, first by the graduated buttresses at its base, then by the strongly marked vertical lines of its upper portion, and above all by the circle of spirelets at the top, out of which the central spire shot up as an absolute necessity of the composition—this art, so dear and so familiar to the Northern builders, was never understood by the Italians. If they, on the contrary, placed



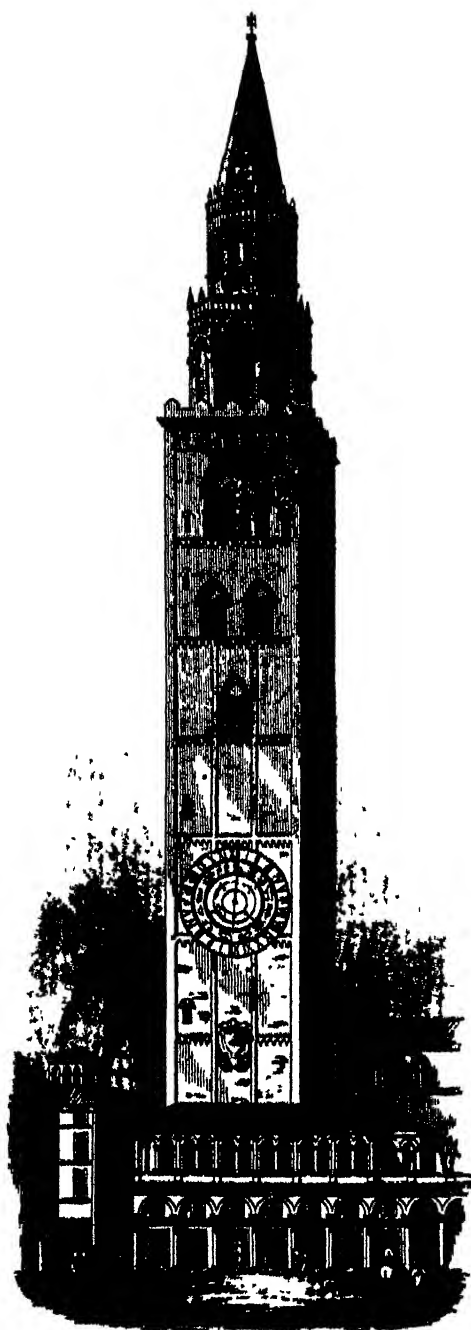
515.

View of the Duomo at Prato. (From Wiebeking.)

an octagon on their square towers, it looked like an accident for which nothing was prepared, and the spire was separated from it only by bold horizontal cornices, instead of by vertical lines, as true taste dictated.

In fact, the Italians seem to have benefited less by the experience or instruction of their Northern neighbours in tower-building than in any other feature of the style, and to have retained their old forms in these after they had abandoned them in other parts of their churches.

The typical tower of its class is the Toraccio of Cremona. It is a monumental tower commenced in 1296 to commemorate a peace made between Cremona and the neighbouring states after a long and tedious



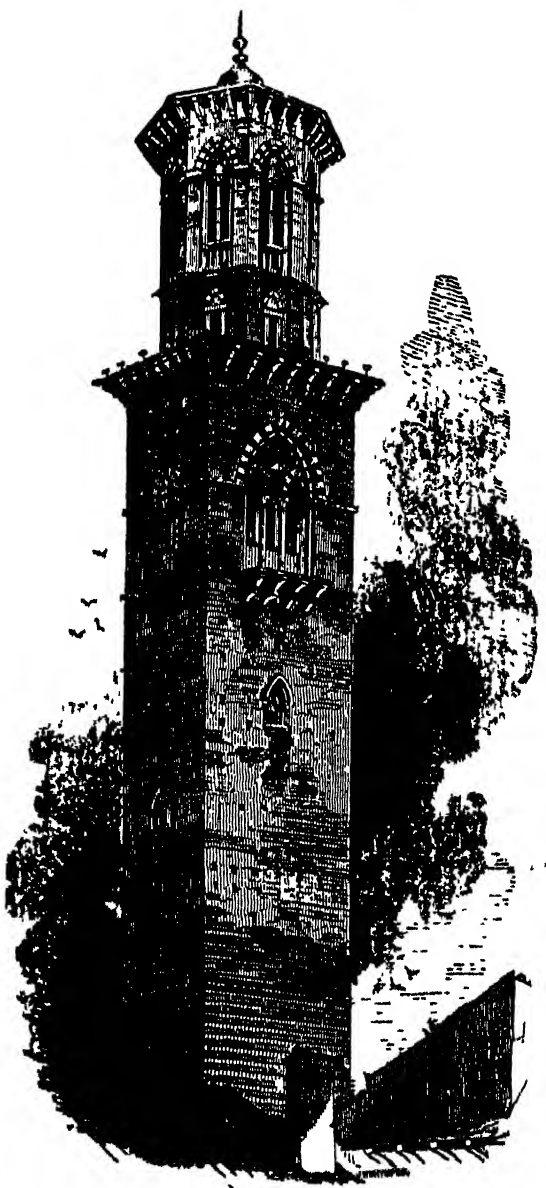
516. Torricio at Cremona. (From Gally Knight.)

contest for supremacy. It is not an ecclesiastical edifice, but partakes, therefore, like those of St. Mark, Venice, and of Modena, more of the character of a civic belfry than of a church tower, such as those previously mentioned. It is the highest and largest, and consequently, according to the usual acceptation of the term the finest, of Italian towers. Its whole height is 396 ft., about two thirds of which is a square ungainly mass, without either design or ornament of any importance. On this is placed an octagon and spire, which, though in themselves perhaps the best specimens of their class in Italy, have too little connection either in design or dimensions with the tower on which they stand.

The celebrated tower of the Ghirlandina at Modena is, perhaps, one of the best to enable us to compare these Italian towers with the Cis-Alpine ones, since it possesses a well-proportioned spire, which is found in few of the others. From its date it belongs to the second division of the subject, having been commenced in the 13th and finished in the 14th century; but, as

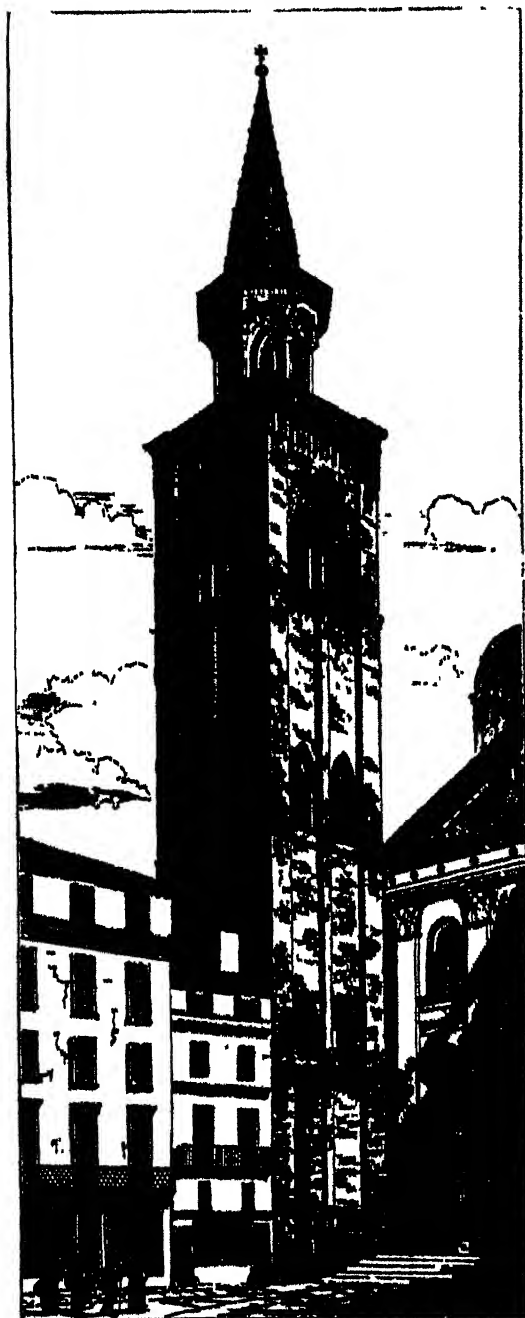
before remarked, there is no line of distinction between the round-arched and pointed-arched styles in Italy, and though this campanile seems to be wholly without any pointed forms, we may describe it here.

Its whole height is about 315 ft., of which less than 200 are taken up in the square part which thus bears a less predominant proportion to the spire than any other Italian example. It is evidently meant to rival the famous German spires which had become such favourites in the age in which it was built; and although it avoids many of the errors into which the excessive love of decoration and of *tours de force* led the Germans, still the result is far from satisfactory. The change from the square to the octagon is abrupt and unpleasing, and the spire itself looks too thick for the octagon. Everywhere there is a want of those buttresses and pin-



517. Campanile, Palazzo Scaligeri, Verona. (From Street.)

naeles with which the Gothic architects knew so well how to prepare for a transition of form, and to satisfy the mind that the composition was not only artistically but mechanically correct. The Italians never



512. Campanile, S. Andrea, Mantua. (From Street.),

comprehended the aspiring principle of the Gothic styles, and consequently, though they had far more elegance of taste and used better details, their works hardly satisfy the mind to a greater extent than a modern classical church or museum.

The same remarks apply to the towers of Siena, Lucca, Pistoja, and indeed to all in the North of Italy: all have some pleasing points, but none are entirely satisfactory. None have sufficient ornament, or display enough design, to render them satisfactory in detail, nor have they sufficient mass to enable them to dispense with the evidence of thought, and to impress by the simple grandeur of their dimensions.

The towers of Asti (1266) and Siena (rebuilt in 1389) are illustrated in Woodcuts Nos. 493 and 498. They certainly display but little art. A more pleasing specimen is the tower (Woodcut No. 515) attached

to the Duomo at Prato (about 1312), which may be considered as a specimen of the very best class of Italian tower design of the age, although in fact its only merit consists in the increase in the size of the openings in every storey upwards, so as to give a certain degree of lightness to the upper part. On this side of the Alps the same effect was generally attained by diminishing the diameter. When a spire is to be added, that is the only admissible mode; but when the building is to be crowned by a cornice, as at Prato, the mode there adopted is perhaps preferable.

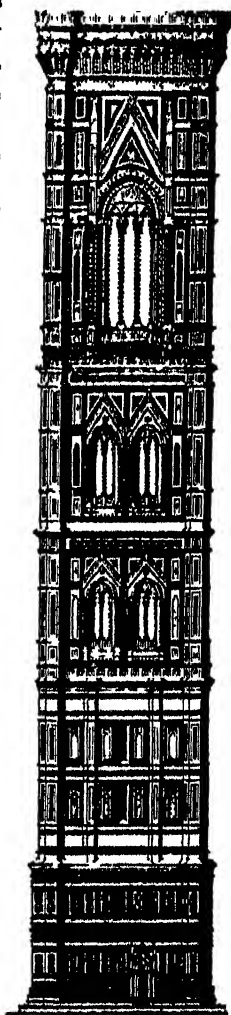
The tower which is attached to the palace of the Scaligeri at Verona (Woodcut No. 517) is perhaps as graceful as any other, and as characteristic of the Italian principles of tower-building. The lower part is absolutely plain and solid, the upper storey alone being pierced with one splendid three-light window in each face, with a boldly projecting cornice over it marking the roof. On this is placed an octagonal lantern two storeys in height. Had the lower portion of the lantern been broken by turrets or pinnacles at the angles, the effect would have been greatly improved. As it is, it seems only a makeshift to eke out the height of the whole; though the octagon with its boldly projecting cornice is as graceful as anything of the kind in Italian architecture.

The campanile attached to the church of St. Andrea at Mantua (Woodcut No. 518) is more nearly Gothic both in design and details. Its vertical lines are strongly marked, and the string-courses and cornices are of moulded brick-work, which is a pleasing and characteristic feature in the architecture of Lombardy.

The worst part of this design is the smallness of the octagon and spire, and the unconnected mode in which they are placed on the roof of the tower.

The typical example of the Italian towers is that erected close to the Duomo at Florence from designs by Giotto, commenced in 1324, and considerably advanced, if not nearly finished, at the time of his death, two years afterwards.¹

Though hardly worthy of the praise which has been lavished on it, it is certainly a very beautiful building. Being covered with



519. Campanile at Florence.
(From Gallabaud.)
Scale 80 ft. to 1 in.

¹ Consult the Appendix, note 1.

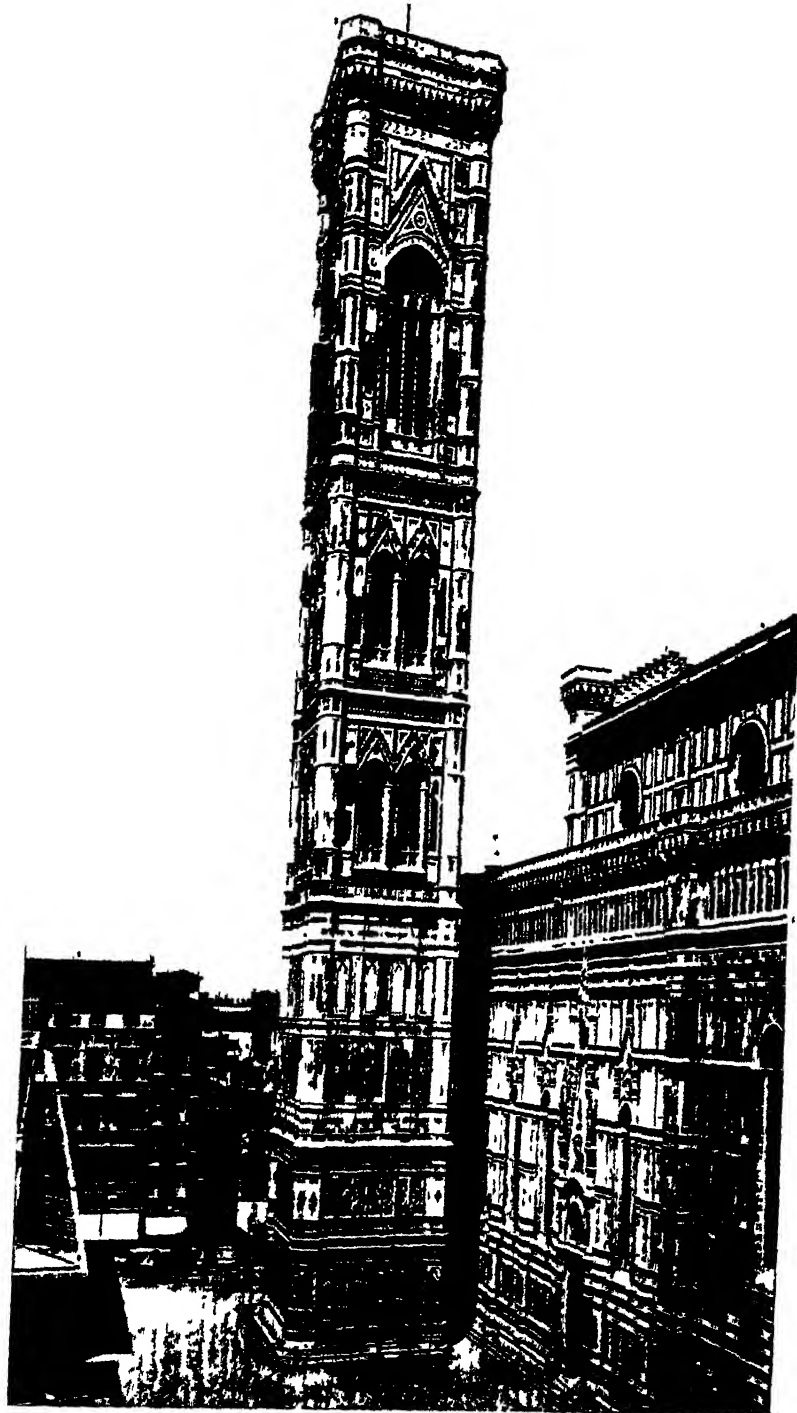
ornament from the base to the summit, it has not that nakedness which is the reproach of so many others, and the octagonal projections at the angles give it considerable relief. Besides this, the openings are very pleasingly graduated. It is virtually solid for about one-third of its height. The middle division consists of two storeys, each with two windows, while the upper part is lighted by one bold opening on each face, as at Prato. All this is good. One great defect of the composition is its parallelism. The slightest expansion of the base would have given it great apparent stability, which its height requires. Another fault is its being divided by too strongly marked horizontal courses into distinct storeys, instead of one division falling by imperceptible degrees into the other, as in the Northern towers. It has yet another defect in common with the Duomo, to which it belongs, namely, the false character of its ornamentation, which chiefly consists of a veneer of party-coloured slabs of marble,—beautiful in itself, but objectionable as not forming a part of the apparent construction.

The tower now rises to a height of 269 ft., and it was intended to have added a spire of about 90 ft. to this; but unless it had been more gracefully managed than is usual in Italy, the tower is certainly better without it. There is nothing to suggest a spire in the part already executed, nor have we any reason to believe that Giotto understood the true principles of spire-building better than his contemporaries.

PORCHES.

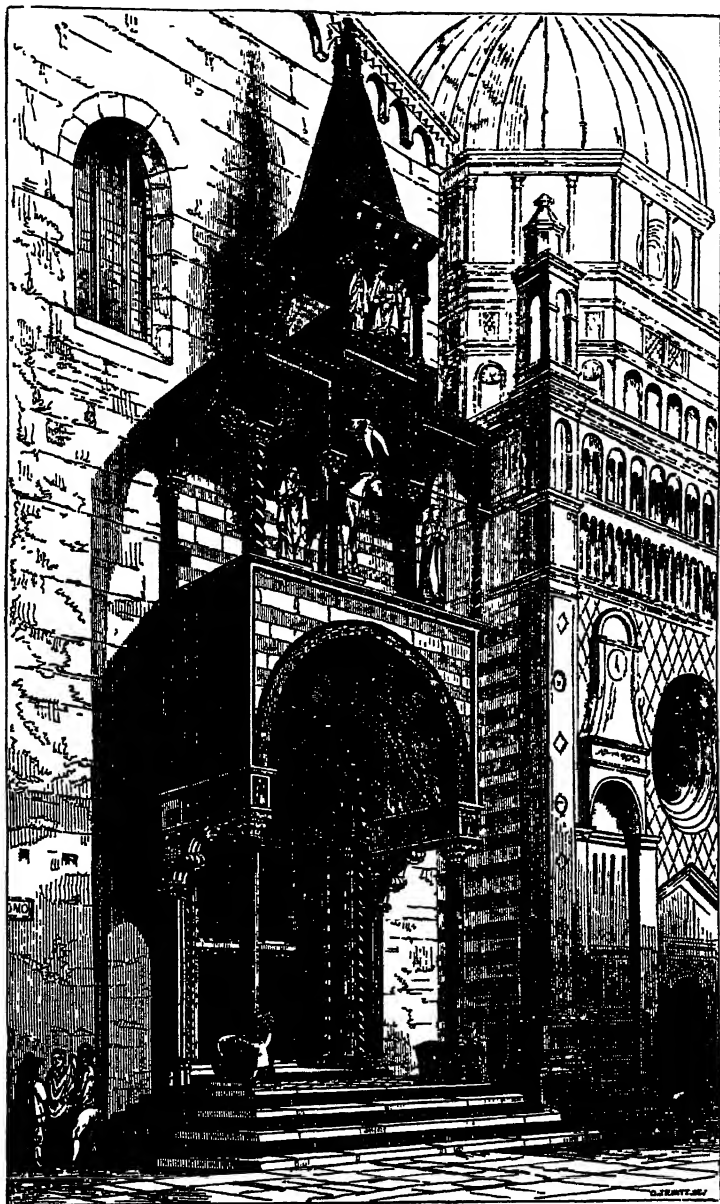
Another feature very characteristic of the Gothic style in Italy is to be found in the porches attached to the churches. Generally they are placed on the flanks, and form side-entrances, and in most instances they were added after the completion of the body of the building, and consequently seldom accord in style with it. One has already been illustrated as attached to the church at Asti (Woodcut No. 493); another (Woodcut No. 501), belonging to the church of Sta. Maria dei Fiori at Florence, is an integral and beautiful part of the design.

One of the most characteristic specimens of the class in all Italy is that attached to the northern flank of the church of Sta. Maria Maggiore at Bergamo (Woodcut No. 520). The principal archway and the doorway within it are circular in form, although built in the middle of the 14th century, and are ornamented with trefoils and other details of the age. Above this are three trefoiled arches, the central one containing an equestrian statue of a certain Duke Lupus, at whose expense the porch was probably built, and above these is a little pagoda-like pavilion containing statues of the Virgin and Child.



THE CAMPANILE OF FLORENCE

The whole design is so unconstructive that it depends more on the iron ties that are everywhere inserted to hold it together than on any



520. North Porch, Sta. Maria Maggiore, Bergamo. (From Street's 'Brick and Marble of the Middle Ages'.)

system of thrusts or counterpoises, which a true Gothic architect would certainly have supplied.

The two main pillars rest on lions, as is universally the case in these porches throughout Italy, though rarely found elsewhere.

Like most of these Italian porches, this one will not stand criticism as a purely architectural object; but its details are so beautiful and its colours so fascinating that it pleases in spite of all its defects of design, and is more characteristic of the truly native feeling shown in the treatment of the pointed style of architecture than the more ambitious examples which were erected under direct foreign influence.

CIVIC BUILDINGS.

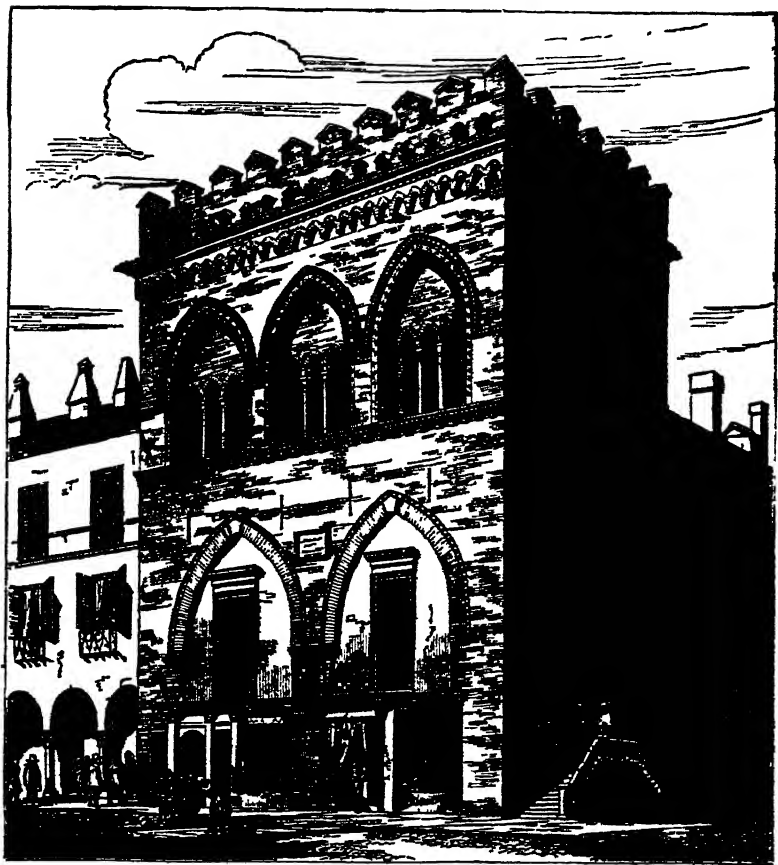
The free towns of Italy required civic buildings almost to the same extent as the contemporary cities in Belgium, though not quite of the same class. Their commerce, for instance, did not require trade halls, but no town was without its town-hall, or *palazzo pubblico*, and belfry. The intrinsic difficulty of the designing of buildings of this class, as compared with churches, has already been pointed out. It cannot therefore be expected that the Italians, who failed in the easier task, should have succeeded in the harder. The town-hall at Siena is perhaps the best existing example, most of the others having been so altered that it is difficult to judge of their original effect. This must be pronounced to be a very poor architectural performance, flat and unmeaning, and without any lines or style of ornament to group the windows together into one composition, so that they are mere scattered openings in the wall.

That at Perugia seems originally to have been better, though now greatly disfigured. At Florence the Palazzo Vecchio is more of a feudal fortalice (required, it must be confessed, to keep the turbulent citizens in order) than the municipal palace of a peaceful community. In Ferrara and other cities the *palazzo pubblico* is really and virtually a fortress and nothing else.

At Piacenza it consists of a range of bold pointed stone arches, supporting an upper storey of brick, adorned with a range of circular-headed windows, richly ornamented, and a pleasing specimen of the mode in which the Italians avoided the difficulty of filling the upper parts of their windows with tracery (which they never liked) and at the same time rendered them ornamental externally.

At Padua and Vicenza are two great halls supported on arcades, in intention like that of Piacenza, but far from possessing its beauty. That at Padua remains in all its pristine ugliness, as hideous an erection as any perpetrated in the Middle Ages. The hall is one of the largest in Europe, measuring 240 ft. in length by 84 in width (Westminster Hall is 238×67), but wholly without ornament or beauty of proportion. Externally the arcades that are stuck to its

sides do not relieve its mass, and are not beautiful in themselves. That at Vicenza, though originally very similar, has been fortunate in having its outside clothed in one of Palladio's most successful designs, —perhaps the only instance in which an addition of that age and style has improved a building of the Gothic period. Comparing this hall as it stands with that at Padua, it must be admitted that the Italians



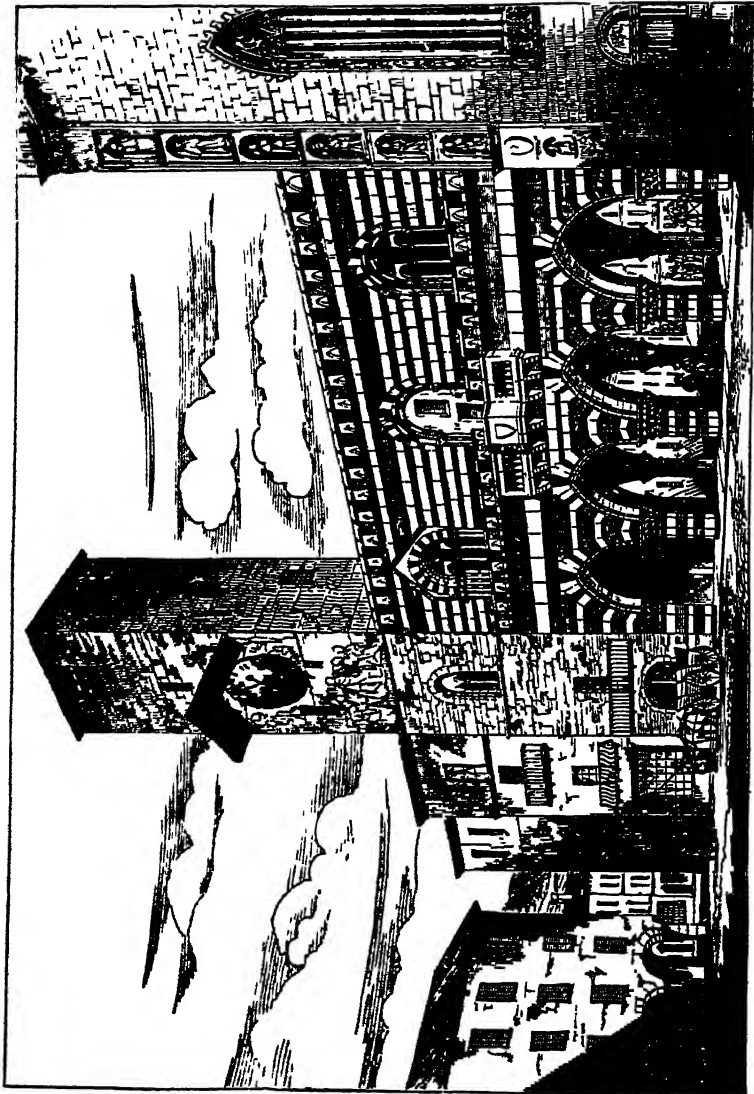
521.

Palace of the Jurisconsults at Cremona. (From Street.)

were perfectly correct in abandoning *their* Gothic for the revived classical style, the improvement being apparent on the most cursory inspection.

A number of the town-halls or Brolettos in the smaller towns still remain unaltered, or nearly so, and retain all the peculiarities of their original design. The Palace of the Jurisconsults at Cremona for instance (Woodcut No. 521) only requires its lower arcades to be again opened to present all its original features, which resemble in almost

every respect those of the palazzo at Piacenza above mentioned, except that the latter has five arches below and six windows above, instead of two and three as here shown. This building is wholly of brick, like most other civic buildings in the North of Italy. Sometimes, as at



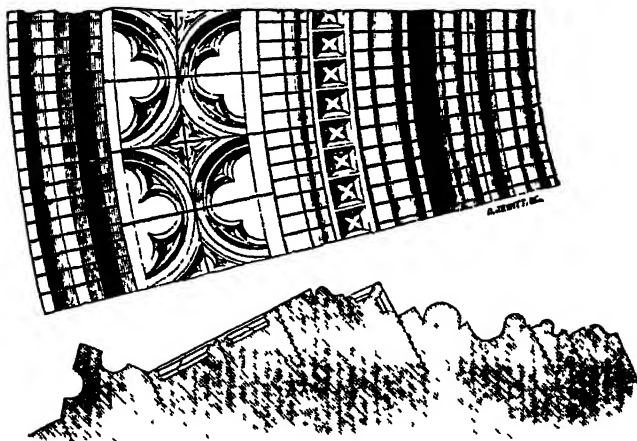
Broletto at Como (From Street)

Piacenza, they are of stone below and brick in the upper storeys. Sometimes, though rarely, they are entirely faced with party-coloured marbles like the Broletto at Como (Woodcut No. 522), which, though not extensive, is a very beautiful specimen of the best form of civic

architecture of the best age in the North of Italy, and standing as it does between the cathedral on the one hand and its own rude old belfry on the other, makes up an extremely pleasing group.¹

One of the most important buildings of this style is the Great Hospital, Milan. It was founded in the year 1456, and consequently belongs to an age when the style was dying out. It still retains more of the pointed style and of Gothic feeling than could have been found in any city farther south, or in any one less impregnated, as it were, with German blood and feeling.

Almost all the windows in the part originally erected are pointed in form and divided by mullions. Their principal ornament consists of garlands of flowers interspersed with busts and masks and figures of Cupids, which surround the windows, or run along the string-courses



523.

Ornamental Brickwork from the Broletto at Brescia (From Street.)

The whole of these are in terra-cotta, and make up a style of ornamentation as original as it is beautiful. It is besides purely local, and far superior to the best copies of Northern details, or to the misapplied forms of Gothic architecture which are so common in Italy.

There is perhaps nothing in the North of Italy so worthy of admiration and study, as the way in which moulded bricks of various kinds are used for decoration, especially in the civic buildings, and also occasionally in the churches. Sublimity is not perhaps to be attained in brickwork; the parts are too small; and if splendour is aimed at, it may require some larger and more costly material to produce the desired effect; but there is no beauty of detail or of design on a small

¹ Similar buildings at Bergamo, architecture of the North of Italy, from
Brescia, and Monza are illustrated in which the two last illustrations are
Mr. Street's beautiful work on the borrowed.

scale that may not be obtained by the use of moulded bricks, which are in themselves far more durable, and, if carefully burnt, retain their sharpness of outline longer, than most kinds of stone.

The most common way in which the Italians used this material was by repeating around their openings or along their cornices small copies of Gothic details, as in this example from a circular window in the Broletto at Brescia (Woodcut No. 523) Where the details are small and designed with taste, the effect is almost equal to stone; but where the details are themselves on a large scale, as is sometimes the

case, the smallness of the materials becomes apparent. Even in this example the semi-quatrefoils of the principal band are too large for the other details, though not sufficiently so to be offensive.

Though not so rich, the effect is almost equally pleasing where the brick is merely moulded on its edge, without any very direct repetition of Gothic details, as in the upper part of the window shown in Woodcut No. 524, from the cathedral of Monza. Where great depth is given so as to obtain shadow, and long tiles are used for the upper arch, as was done by the Romans, an appearance of strength and solidity is given to the construction unsurpassed by that obtained in any other material.



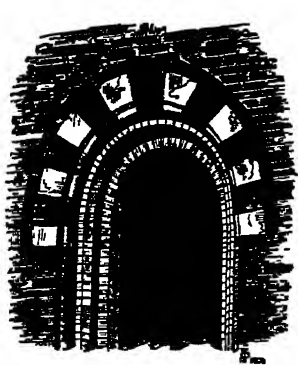
524. Window from the Cathedral of Monza.
(From Street.)

Perhaps the most pleasing application of terra-cotta ornaments is where bricks of different colours are used so as to produce by variety of pattern that relief which cannot so well be given by depth of shadow—a perfectly legitimate mode of ornament when so small a material is used, and when beauty only, not sublimity, is aimed at.

This is sometimes produced in Italy by introducing stone of a different colour among the bricks, as in the two examples from Verona (Woodcuts Nos. 525, 526); and where this mode of ornamentation is carried throughout the building, the effect is very pleasing. It is difficult, however, so to proportion the two materials as to produce exactly the effect aimed at, and seldom that the objection does not

present itself of too much or too little stone being used. The want of shadow in brick architecture is most felt in the cornices, where sufficient projection cannot be obtained. The defect might be easily and legitimately got over by the employment of stone in the upper members of the cornice, but this expedient seems never to have been resorted to.

There are few of these brick buildings of the North of Italy which



525.



Windows from Verona. (From Street)

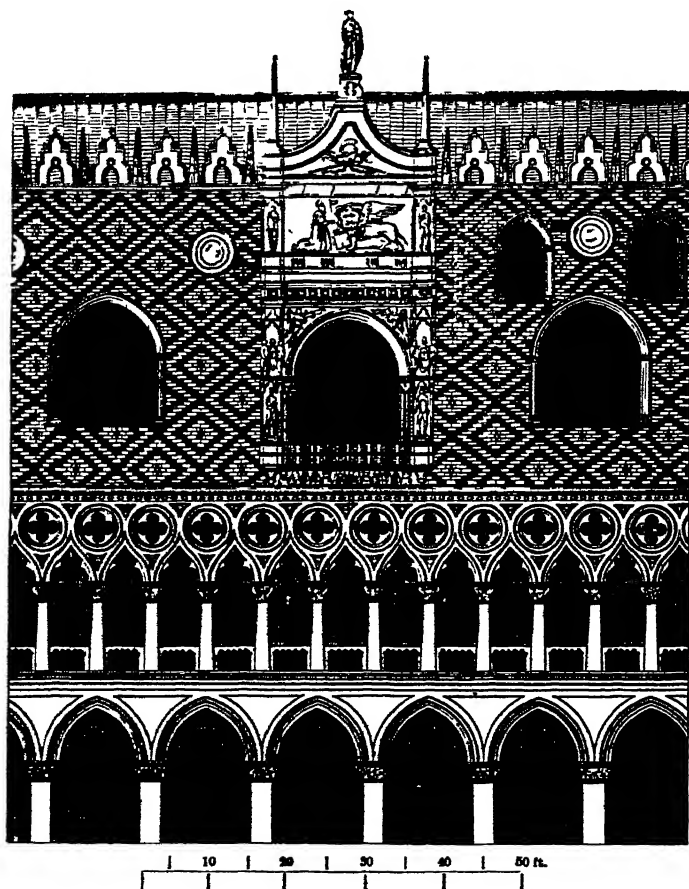
526.

are not open to just criticism for defects of design or detail, but this may arise from the circumstance that they all belong to an age when the Italians were using a style which was not their own, and employing ornaments of which they understood neither the origin nor the application. The defects certainly do not appear to be at all inherent in the material, and, judging from the experience of the Italians, were we to make the attempt in a proper spirit, we might create with it a style far surpassing anything we now practise.

VENICE.

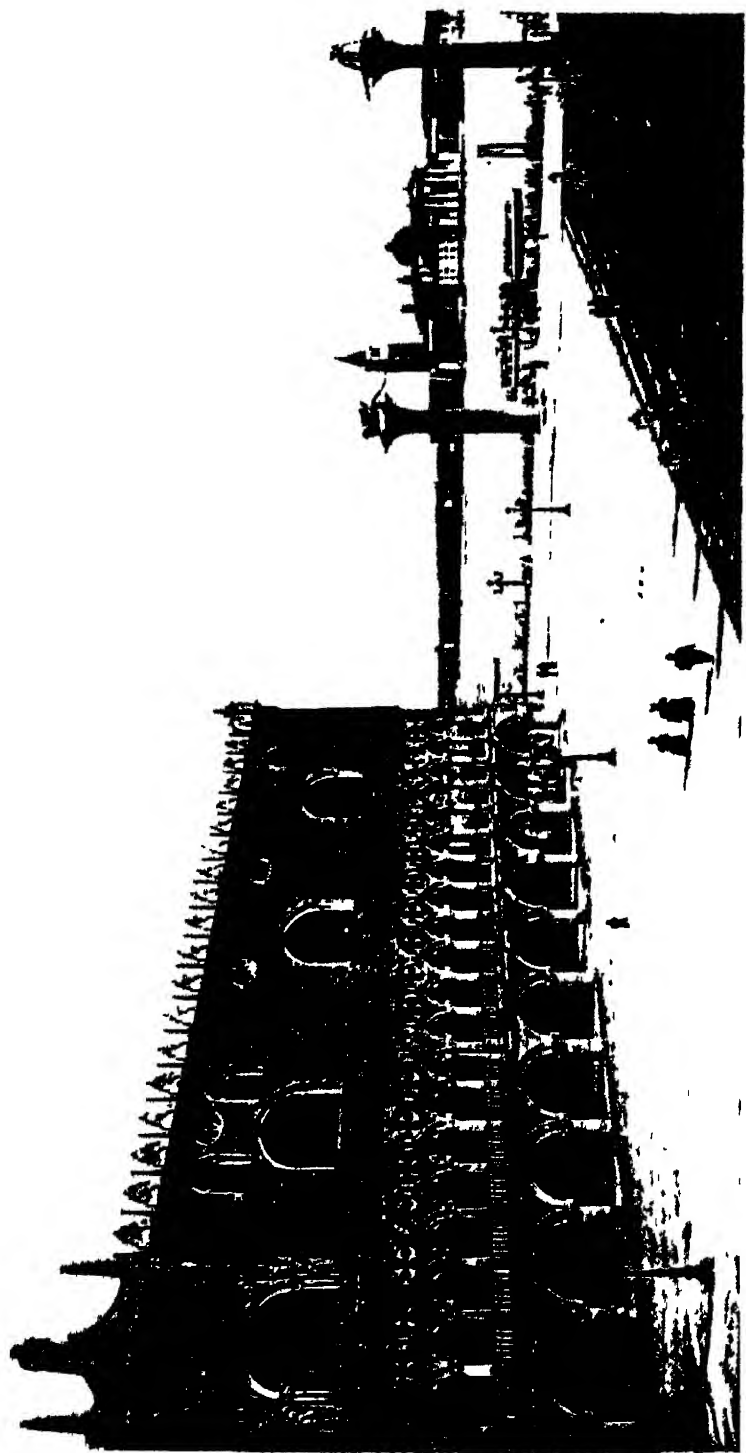
The most beautiful specimens of the civil and domestic architecture of Italy in the Gothic period are probably to be found in Venice, the richest and most peaceful of Italian cities during the Middle Ages. It is necessary to speak of the buildings of Venice, or more correctly, of the Venetian Province, by themselves, since its architecture is quite distinct both in origin and character from any other found in Northern Italy. It was not derived from the old Lombard Round Gothic, but from the richer and more graceful Byzantine. True to its parentage, it partook in after ages far more of the Southern Saracenic style than of the Northern Gothic; still it cannot be classed as either Byzantine or Saracenic, but only as Gothic treated with an Eastern feeling, and enriched with many details borrowed from Eastern styles.

The largest and most prominent civic example of Venetian Gothic is the Doge's Palace (Woodcut No. 527), first built in the commencement of the 9th century, burnt down in 976 and 1106, rebuilt 1116, and restored and enlarged by Ziani, whose work was gradually pulled down between 1300 and 1424 to make way for the existing Palace (or at least the Gothic portion of it facing the sea and the Piazzetta). The earliest portion is the S.E. angle. The S.W. angle



527. Central Part of the Façade of the Doge's Palace, Venice. (From Cicognara.)

was built about 1340, down to the tenth column (ground storey); the remainder, including the Porta della Carta (about 1424), was erected by Bartolomeo Bon and his son, the architects of the Cà d'Oro. Though many people are inclined to consider its general effect unsatisfactory, an attempt has recently been made to exalt it above the Parthenon, and all that was great and beautiful in Greece, Egypt, or Gothic Europe. There are indeed few buildings of which it is so difficult to judge



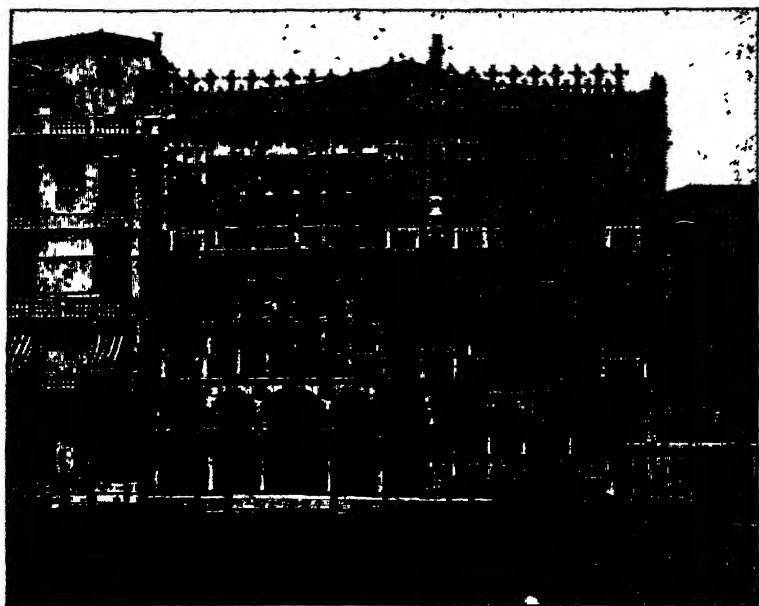
THE DUCAL PALACE, VENICE

calmly, situated as it is, attached to the basilica of St. Mark, facing the beautiful library of Sansovino, and looking on the one hand into the piazza of St. Mark's, and on the other across the water to the churches and palaces that cover the islands. It is, in fact, the centre of the most beautiful architectural group that adorns any city of Europe, or of the world—richer than almost any other building in historical associations, and in a locality hallowed, especially to an Englishman, by the poetry of Shakespeare. All this spreads a halo around and over the building, which may furnish ample excuse for those who blindly praise even its deformities. But the soberer judgment of the critic must not be led astray by such feelings, and while giving credit for the picturesque situation of this building and a certain grandeur in its design, he is compelled wholly to condemn its execution. The two arcades which constitute the base are, from their extent and the beauty of their details, as fine as anything of their class executed during the Middle Ages. There is also a just and pleasing proportion between the simple solidity of the lower, and the airy—perhaps slightly fantastic—lightness of the upper of these arcades. Had what appears to have been the original design been carried out, the building would rank high with the Alhambra and the palaces of Persia and India; but in an evil hour, in 1480, it was discovered that larger rooms were required than had been originally contemplated, and the upper wall, which was intended to stand on the back wall of the arcades, was brought forward level with the front overpowering the part below by its ill-proportioned mass.¹ This upper storey too is far from being beautiful in itself. the windows in it are not only far too few, but they are badly spaced, squat, and ungraceful; while the introduction of smaller windows and circles mars its pretensions to simplicity without relieving its plainness. Its principal ornaments are two great windows, one in the centre of each face, which appear to have assumed their present form after the fire in 1578. These are not graceful objects in themselves, and having nothing in common with the others, they look too like insertions to produce an entirely satisfactory effect. The pierced parapet, too, is poor and flimsy when seen against the sky. Had it crowned the upper arcade, and been backed by the third storey, it would have been as pleasing as it is now poor. Had the upper storey been set back, as was probably originally designed, or had it been placed on the ground and the arcades over it; had, in short, any arrangement of the parts been

¹ In the Bodleian in Oxford is a MS of the 14th century containing a view of the Piazzetta, engraved in Yule's 'Marco Polo,' Introduction, p. xlviii., in which the outer wall of the building is shown resting on the inner wall of the arcade.

This would suggest either that in Ziani's building the upper wall was set back or that some subsequent changes were made in the two parts, of which, however, there is no record.

adopted but the one that exists, this might have been a far more beautiful building than it is. One thing in this palace is worth remarking before leaving it—that almost all the beauty ascribed to its upper storey arises from the polychromatic mode of decoration introduced by disposing pieces of different coloured marbles in diaper patterns. This is better done here than in Florence; inasmuch as the slabs are built in, not stuck on. The admiration which it excites is one more testimony to the fact that when a building is coloured, ninety-nine people in a hundred are willing to overlook all its faults,



10 20 30 40 50 ft.

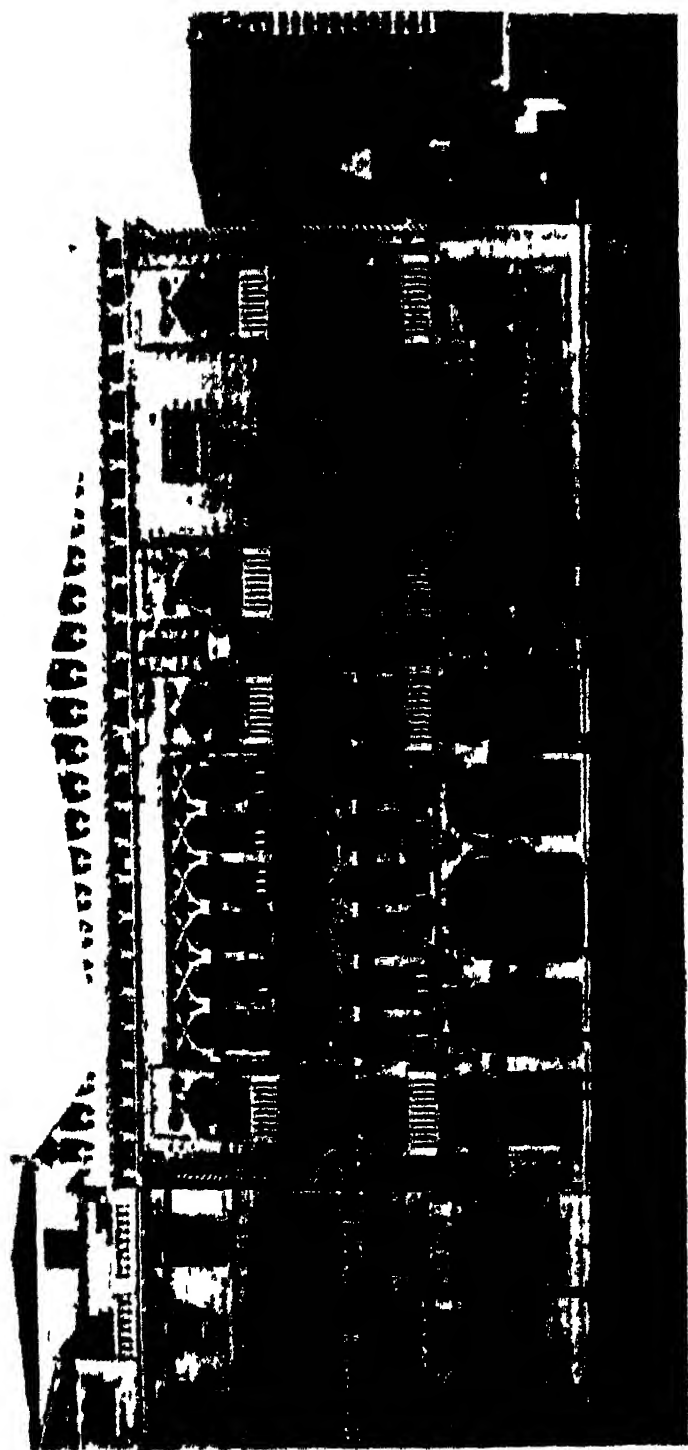
528.

Cà d'Oro, Venice. (From Cicognara.)

and to extol that as beautiful, which without the adjunct of colour they would have unanimously agreed in condemning.

A better specimen of the style, because erected as designed, and remaining nearly as erected, is the Cà d'Oro (Woodcut No. 528),¹ built in the first years of the 15th century, contemporary with the piazzetta part of the ducal palace. It has no trace of the high roofs or aspiring tendencies of the Northern buildings of the same age, no boldly-marked buttresses in strong vertical lines, but, on the contrary flat sky lines and horizontal divisions pervade the design, and every

¹ So called from its having been, according to Signor Boni (see *Trasacco*—tions R.I.B.A., vol. iii., new series, 1887), richly decorated with colour and gilding.

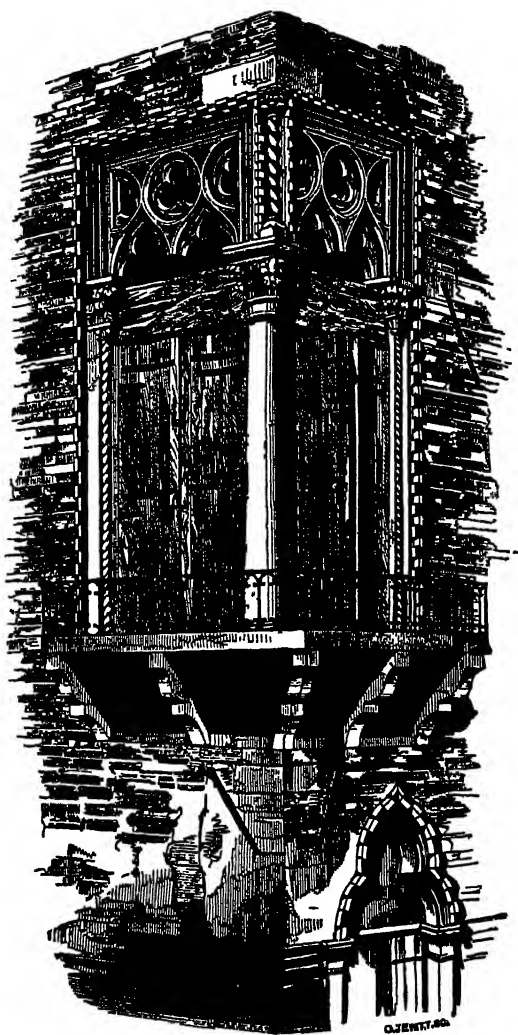


CA' D'ORO, VENICE

part is ornamented with a fanciful richness far more characteristic of the luxurious refinement of the East than of the manlier appreciation of the higher qualities of art which distinguished the contemporary erections on this side of the Alps.

The blank space between the battlements (which belong to the first building) and the string-course would seem to have been decorated with a series of twenty-six cusped arches, forming niches (shown in a mezzotint drawing dated 1800)¹ and surmounted by an upper string-course projecting in front of the battlements, thus crowning the building in a more satisfactory way than at present. The house was built for Signor Marino Contarini, Procurator of Venice, its original title being the Palace of Sta. Sophia.

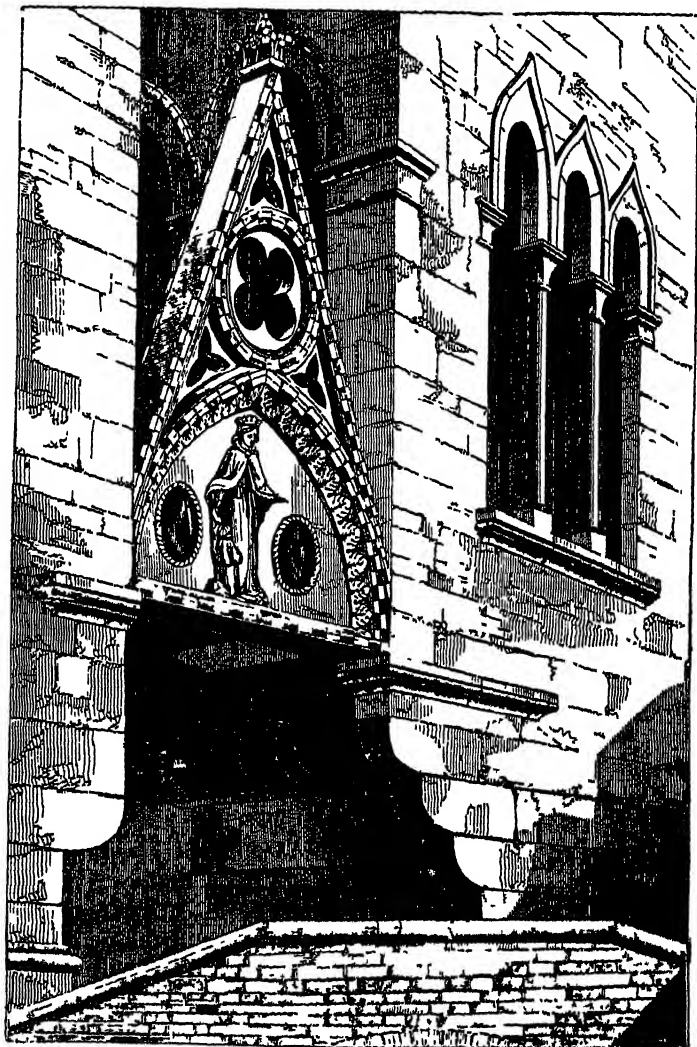
The palaces known as the Foscari and Pisani are very similar in design to that of Cà d'Oro, though less rich and less happy in the distribution of the parts; but time has restored to them that colour which was an inherent part of the older design, and they are so



529. Angle Window at Venice. (From Street.)

¹ The same drawing shows that a calle or small street existed on the west, or left-hand side, as well as on the east, and the enriched work carved by Giovanni Bon, stonecutter (the architect of the Porta delle Carta of the Ducal Palace), was to extend along the whole front facing the Grand Canal and ten feet at each end down the two streets.

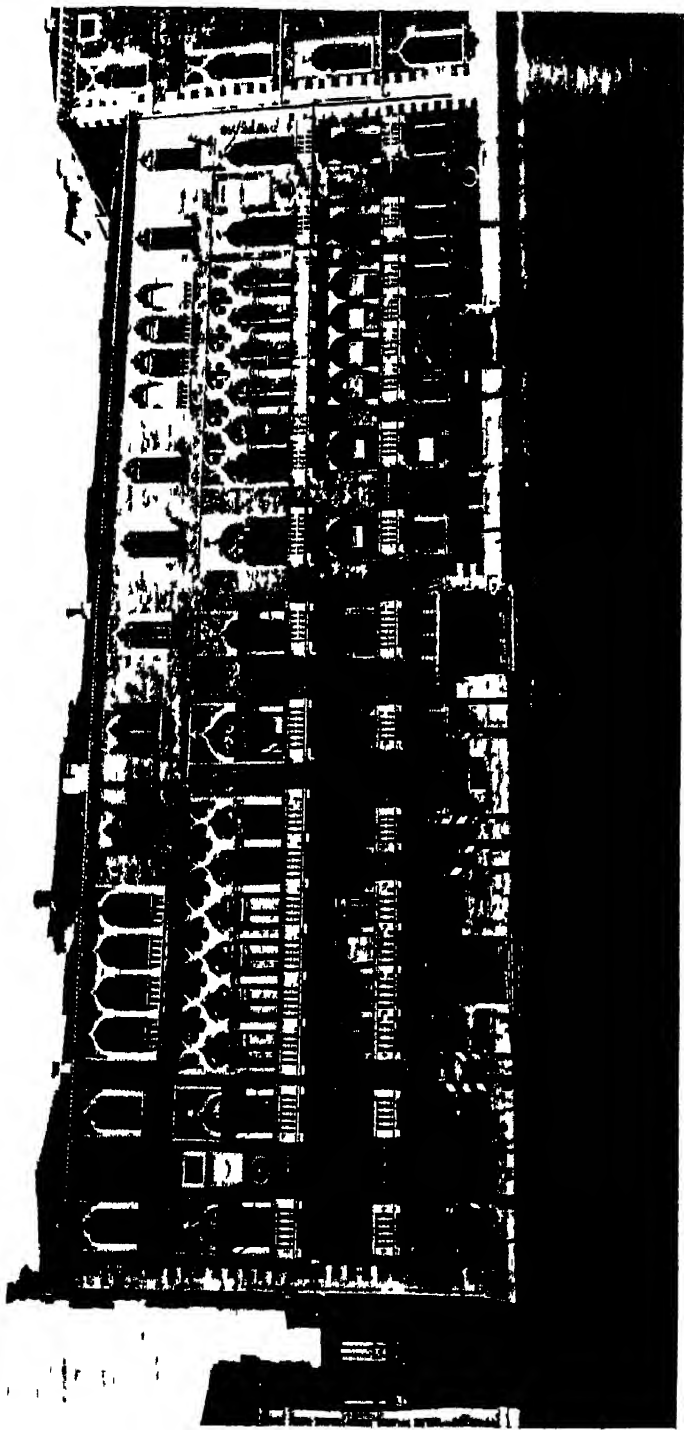
beautiful and so interesting that it is hard to criticise even their too apparent defects as works of art. Most of the faults that strike us in the buildings of Venice arise from the defective knowledge which they betray of constructive principles. The Venetian architects had



530.

Ponte del Paradiso, Venice. (From Street)

not been brought up in the hard school of practical experience, nor thoroughly grounded in construction, as the Northern architects were by the necessities of the large buildings which they erected. On the contrary they merely adopted details because they were pretty, and used



PALAZZO GIUSTINIANI VESCOVI, VENICE

them so as to be picturesque in domestic edifices, where convenience was everything, and construction but a secondary consideration. For instance, the window here shown (Woodcut No. 529) cannot fail to give the building in which it occurs an appearance of weakness and insecurity quite inexcusable in spite of its external picturesqueness or its internal convenience.

The same remark applies to the screen (Woodcut No. 530) above the Ponte del Paradiso, which, though useless and unconstructive to the last degree, by its picturesque design and elegant details arrests all travellers. Indeed it is impossible to see it without admiring it, though, if imitated elsewhere, it could hardly be saved from being ridiculous.

Both these examples are surrounded by a curious dentil moulding which is found throughout St Mark's, and the origin of which must be sought for in St. Sophia at Constantinople, though it is better known as the Venetian dentil.

There are, besides these, many smaller palaces and houses of the Gothic age, all more or less beautiful, and all presenting some detail or some happy arrangement well worthy of study, and usually more refined and more beautiful than those of the rude but picturesque dwellings of the burghers of Bruges or Nuremberg.

The mixed Gothic style which we have been describing appears to have exerted a considerable effect on the subsequent palatial architecture of Venice, even after classical details had become generally fashionable. The arrangement of the façades remained nearly the same down to a very late period; and even when the so-called return to classical forms took place, many details of the previous style were here retained, which was not the case in any other part of Europe.

Domestic work of similar character to that of Venice is found in some of the Dalmatian towns, and in the Islands of Quarnero. At Ragusa, in Dalmatia, is a palace built in 1430, according to Mr. Jackson, from the designs of Master Onofrio Giordani de la Cava, a Neapolitan, but altered and rebuilt by Michelozzo in 1464, after the fire and explosion in 1462. The arcade of the ground storey had originally pointed arches, but in the rebuilding these were replaced by circular arches, some of the earlier capitals being utilised in the later structure. Drawings are given in Mr. Jackson's work. The court-yards of this palace and of the Sponza in the same town are interesting examples of domestic work.

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CHAPTER VIII.

SICILY.

CONTENTS.

Population of Sicily—The Saracens—Buildings at Palermo—Cathedral of Monreale-Cefalu—The Pointed Arch.

THERE are few chapters of architectural history—at least among the shorter ones—more interesting, in various ways, than that which treats of the introduction of the pointed-arched style into Sicily, and its peculiar development there. The whole history is so easily understood, the style itself so distinct from any other, and at the same time so intrinsically beautiful, that it is of all the divisions of the subject the one best suited for a monograph, and so it seems to have been considered by many—Hittorff and Zanth,¹ the Duke of Serra di Falco,² and our own Gally Knight,³ having chosen it for special illustration, so that in fact there are few European styles of which we have more complete information. Many of the points of its history are nevertheless still subjects of controversy, not from any inherent obscurity in the subject, but because it has been attempted to apply to it the rules and theories derived from the history of Northern art.

The map of Sicily tells its whole history; its position and form reveal nearly all that is required to be known of the races that inhabited it, and of their fate. Situated in the centre of the Mediterranean Sea, of a nearly regular triangular form, and presenting one side to Greece, another to Africa, and a third to Italy, the length of these coasts, and their relative distance from the opposite shores, are nearly correct indexes of the influence each has had on the civilisation of the island.

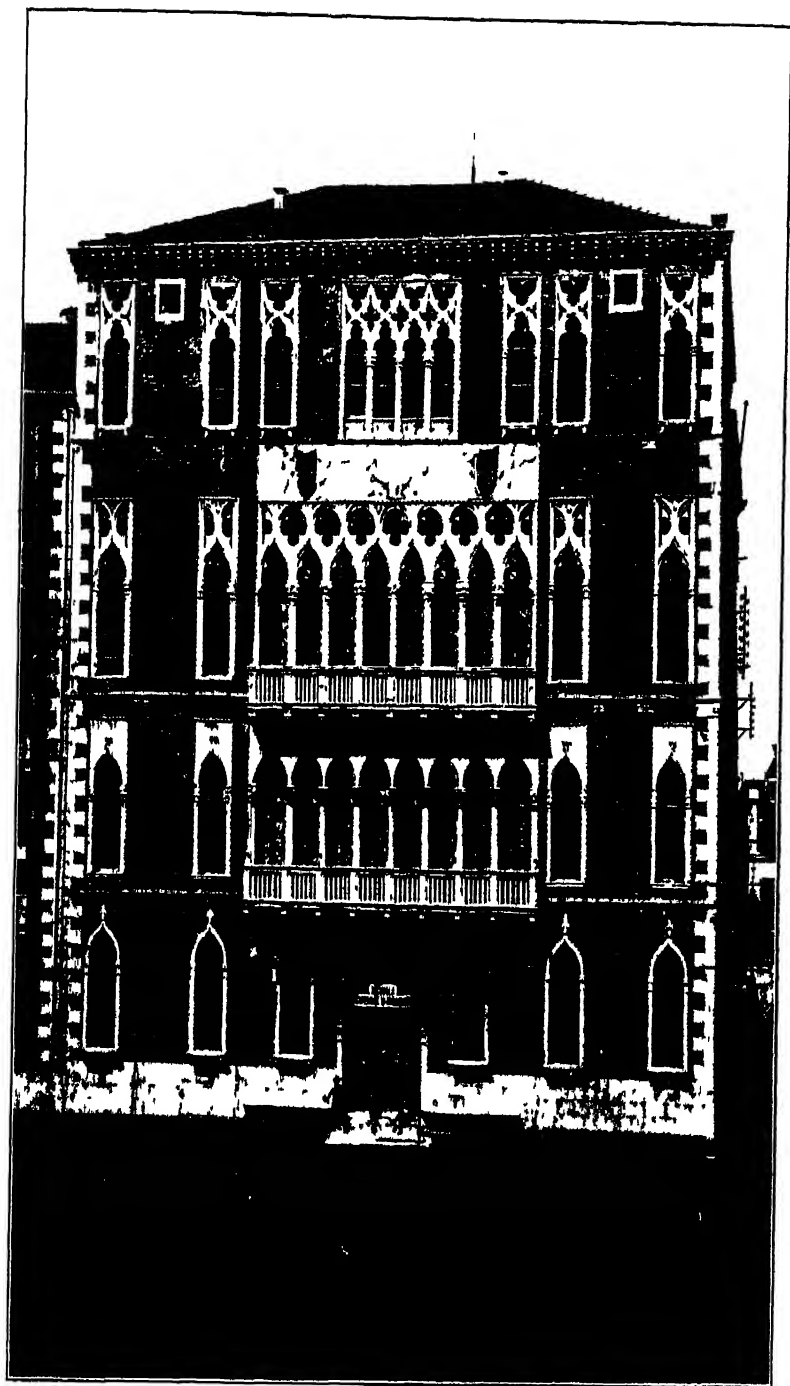
In a former chapter⁴ it was shown how strong was the influence of Dorian Greece in Sicily. Almost all the ancient architectural remains belong to that people. The Carthaginians, who succeeded the Greeks, left but slight traces of humanising influence; and the rule of the

¹ 'Architecture Moderne de la Sicile,' fol. Paris, 1826-30.

² 'Del Duomo di Monreale e di altre Chiese Siculo-Normane,' fol. Palermo, 1860.

³ 'Normans in Sicily,' 8vo. text, fol. plates, London, 1838.

⁴ Part I. Bk. III. ch. 2.



FOSCARI PALACE, VENICE

Romans was that of conquerors, oppressive and destructive of the civilisation of the people. After the Christian era, a very similar succession of influences took place. First and most powerful was the Byzantine element, which forms the groundwork and main ingredient in all that follows. To this succeeded the Saracenic epoch bright, brilliant, but evanescent. In the 11th century the Italian element resumed its sway under the banner of a few Norman adventurers, and in the guise of a Norman conquest sacerdotal Rome regained the inheritance of her imperial predecessor. In the Christian period, however, the elements were far from being so distinct as in those preceding it, for reasons easily understood. Every fresh race of masters found the island already occupied by a very numerous population of extremely various origin. The new-comers could do no more than add their own forms of art to those previously in use; the consequence being in every case a mixed style, containing elements derived from every portion of the inhabitants.

We have no means of knowing the exact form of the Byzantine churches of Sicily before the Arab invasion. All have either perished or are undescribed. The Saracenic remains, too, have all disappeared, the buildings generally supposed to be relics of their rule being now proved to have been erected by Mahometan workmen for their Christian masters. With the Norman sway a style arose which goes far to supply all these deficiencies, being Greek in essence, Roman in form, and Saracenic in decoration; and these elements mixed in exactly those proportions which we should expect. Nowhere do we find the square-domed plans of the Greek Church, nor any form suited to the Greek ritual. These have given place to the Roman basilica, and to an arrangement adapted to the rites of the Romish Church; but all the work was performed by Greek artists, and the Roman outline was filled up and decorated to suit the taste and conciliate the feelings of the worshippers, who were conquered Greeks or converted Moors. Their fancy, too—richer and happier than that of the ruder races of the West—was allowed full play. An Eastern exuberance in designing details and employing colours is here exhibited, cramped a little, it must be confessed, by the architectural forms and the ritual arrangements to which it is applied, but still a ruling and beautifying principle throughout.

Among all these elements, those who are familiar with architectural history will hardly look for anything indicative of purely Norman taste or feelings. A mere handful of military adventurers, they conquered as soldiers of Rome and for her aggrandisement, and held the fief for her advantage: they could have brought no arts even if their country had then possessed any. They were content that their newly-acquired subjects should erect for them palaces after the beautiful fashion of the country, and that Roman priests should direct the building of churches

suited to their forms, but built as the Sicilians had been accustomed to build, and decorated as they could decorate them, better than their masters and conquerors.

All this, when properly understood, lends an interest to the history of this little branch of architecture, wholly independent of its artistic merit; but the art itself is so beautiful and so instructive, from its being one of the styles where polychromy was universally employed and is still preserved, that notwithstanding all that has been done, it still merits more attention.

It is extremely difficult, in a limited space, to give a clear account of the Sicilian pointed style, owing to the fusion of the three styles of which it is composed being far from complete or simultaneous over the whole island, and there being no one edifice in which all three are mixed in anything like equal proportions. Each division of the island, in fact, retains a predilection for that style which characterised the majority of its inhabitants. Thus Messina and the northern coast as far as Cefalu remained Italian in the main, and the churches there have only the smallest possible admixture of either Greek or Saracenic work. The old parts of the Nunziatella at Messina might be found at Pisa, while the cathedral there and at Cefalu would hardly be out of place in Apulia, except indeed that Cefalu displays a certain early predilection for pointed arches, and something of Greek feeling in the decoration of the choir.

In like manner in Syracuse and the southern angle of the island the Greek feeling prevails almost to the exclusion of the other two. In Palermo, on the other hand, and the western parts, the architecture is so strongly Saracenic that hardly any antiquary has yet been able to admit the possibility of such buildings as the Cuba and Ziza having been erected by the Norman kings. There is, however, little or no doubt that the latter was built by William I. (1154-1169), and the other about the same time, though by whom is not so clear. Both these buildings were erected after a century of Norman dominion in the island: still the Saracenic influence, so predominant in them, need not astonish us, when we consider the immeasurable superiority of the Saracens in art and civilisation, not only to their new rulers, but to all the other inhabitants. It was therefore only natural that they should be employed to provide for the Norman Counts such buildings as they alone had the heart to erect and adorn.

A still more remarkable instance of the prevalence of Saracenic ideas is represented in Woodcut No. 531, being the Church of San Giovanni degli Eremiti at Palermo. Here we find a building erected beyond all doubt as late as the year 1132, by King Roger, for the purposes of Christian worship, which would in no respect, except the form of its tower, be out of place as a mosque in the streets of Delhi or Cairo. In fact, were we guided by architectural considerations alone,

this church would have more properly been described under the head of Saracenic than of Christian architecture.

There are three other churches of Palermo which exhibit the new mixed style in all its completeness. These are the Martorana (1113-1143), in which the Byzantine element prevails somewhat to the exclusion of the other two; the Capella Palatina in the Palace, built in 1132, and the more magnificent church of Monreale, near Palermo (Woodcut No. 532), begun in 1174, and certainly the finest and most beautiful of all the buildings erected by the Normans in this country.



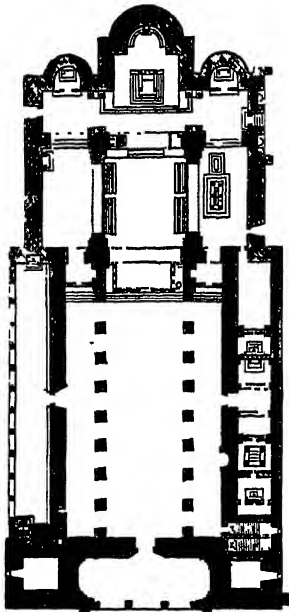
531. San Giovanni degli Eremiti, Palermo (From Gally Knight's 'Normans in Sicily'.)

This church is 315 ft. in its extreme length; while the beautiful gem-like Capella of the royal palace is much smaller, being only 125 ft. long, and consequently inferior in grandeur, though in the relative proportions of its parts, and in all other essential points, very similar.

In arrangement and dimensions the cathedral of Monreale very much resembles that at Messina, showing the same general influence in both; but all the details of the Palermitan example betray that admixture of Greek and Saracenic feeling which is the peculiarity of Sicilian architecture. There is scarcely a single form or detail in the whole building which can strictly be called Gothic, or which points to any connection with Northern arts or races. The plan of this, as of all the Sicilian churches, is that of a Roman basilica, far more than of a Gothic church.

In none of them was any vault ever either built or intended. The central is divided from the side-aisles by pillars of a single stone, generally borrowed from ancient temples, but (in this instance at least) with capitals of great beauty, suited to their position and to the load they have to support. The pier-arches are pointed, but not Gothic, having no successive planes of decoration, but being merely square masses of masonry of simple but stilted forms. The windows, too, though pointed, are undivided, and evidently never meant for painted glass. The roofs of the naves are generally of open framing, like those of the basilicas, and ornamented in Saracenic taste. The aisles, the intersection of the transepts and nave, and the first division of the

sanctuary are generally richer, and consequently more truly Moorish. The apse again is Roman. Taken altogether, it is only the accident of the pointed arch having been borrowed from the Moors that has led to the idea of Gothic feeling existing in these edifices. It does exist at Messina and Cefalu, but in Palermo is almost wholly wanting.



532. Plan of Church at Monreale (From Hittorff and Zanth) Scale 100 ft. to 1 in

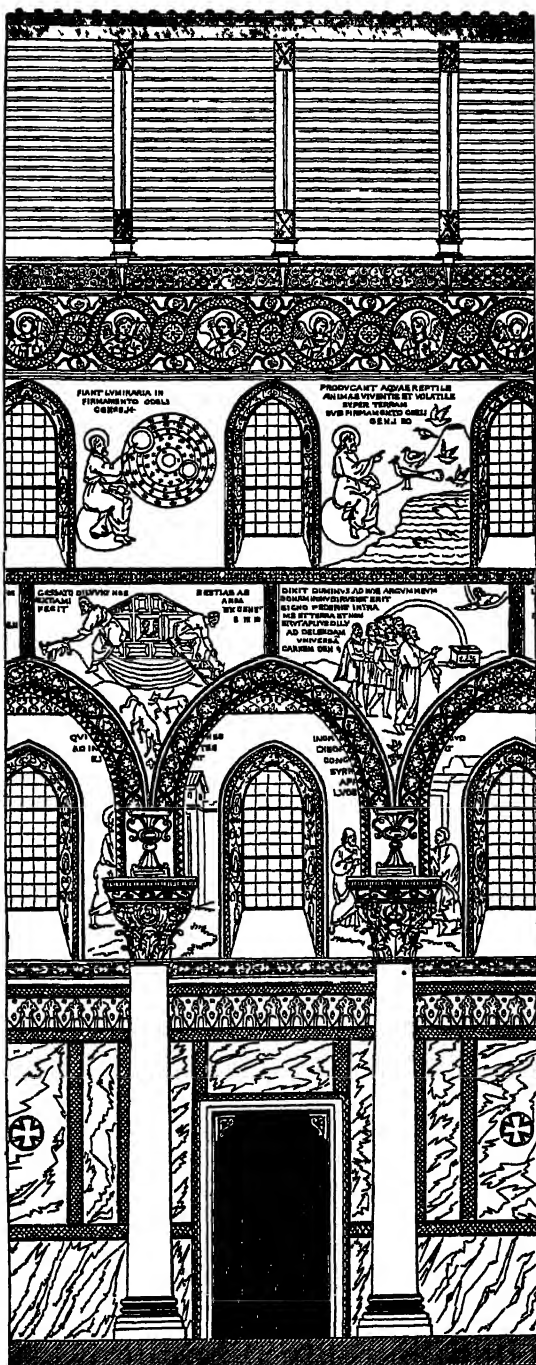
It is evident that the architectural features in the buildings of which the cathedral of Monreale is the type, were subordinate, in the eyes of their builders, to the mosaic decorations which cover every part of the interior, and are, in fact, the glory and pride of the edifice, by which alone it is entitled to rank among the finest of Mediæval churches. All the principal personages of the Bible are represented in the stiff but grand style of Greek art, sometimes with Greek inscriptions, and accompanied by scenes illustrat-

ing the Old and New Testaments. They are separated by and intermixed with arabesques and ornaments in colour and gold, making up a decoration unrivalled in its class by anything—except, perhaps, St. Mark's—the Middle Ages have produced. The church at Assisi is neither so rich nor so splendid. The Certosa is infamous in taste as compared with this Sicilian cathedral. No specimen of opaque painting of its class, on this side of the Alps, can compete with it in any way. Perhaps the painted glass of some of our cathedrals may have surpassed it, but that is gone. In this respect the mosaic has the advantage. It is to be regretted that we have no direct means of comparing the effect of these two modes of decoration. In both the internal architecture was subordinate to the colour—more so, perhaps,

as a general rule, in the Sicilian examples than in the North. In fact, the architecture was merely a vehicle for the display of painting in its highest and most gorgeous forms.

Besides the mosaic pictures which adorn the upper part of the walls of these Palermitan churches, they possess another kind of decoration almost equally effective, the whole of the lower part of the walls being revêted with slabs of marble or porphyry disposed in the most beautiful patterns. The Martorana depends wholly for its effect on this species of decoration. In the Capella Palatina and the church at Monreale, it occupies the lower part of the walls only, and serves as a base for the storied decorations above; but whether used separately or in combination, the result is perfect, and such as is hardly attained in any other churches in any part of Europe.

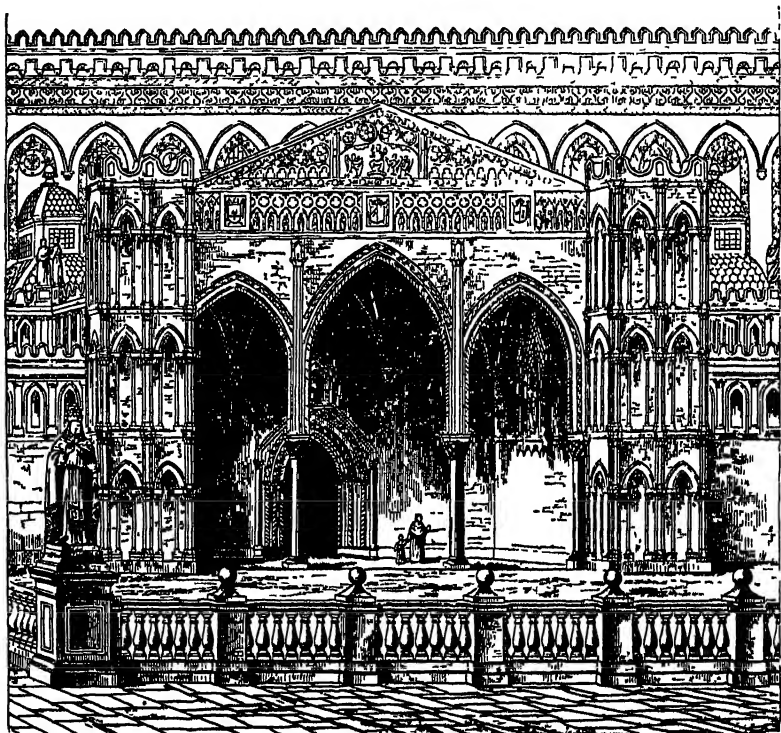
Externally the Gothic architects had



533. Portion of the Nave, Monreale. (From Hitborth and Zanth.)

immensely the advantage. They never allowed their coloured decorations to interfere with their architectural effects. On the contrary, they so used them as to make the windows externally as well as internally their most beautiful and attractive features.

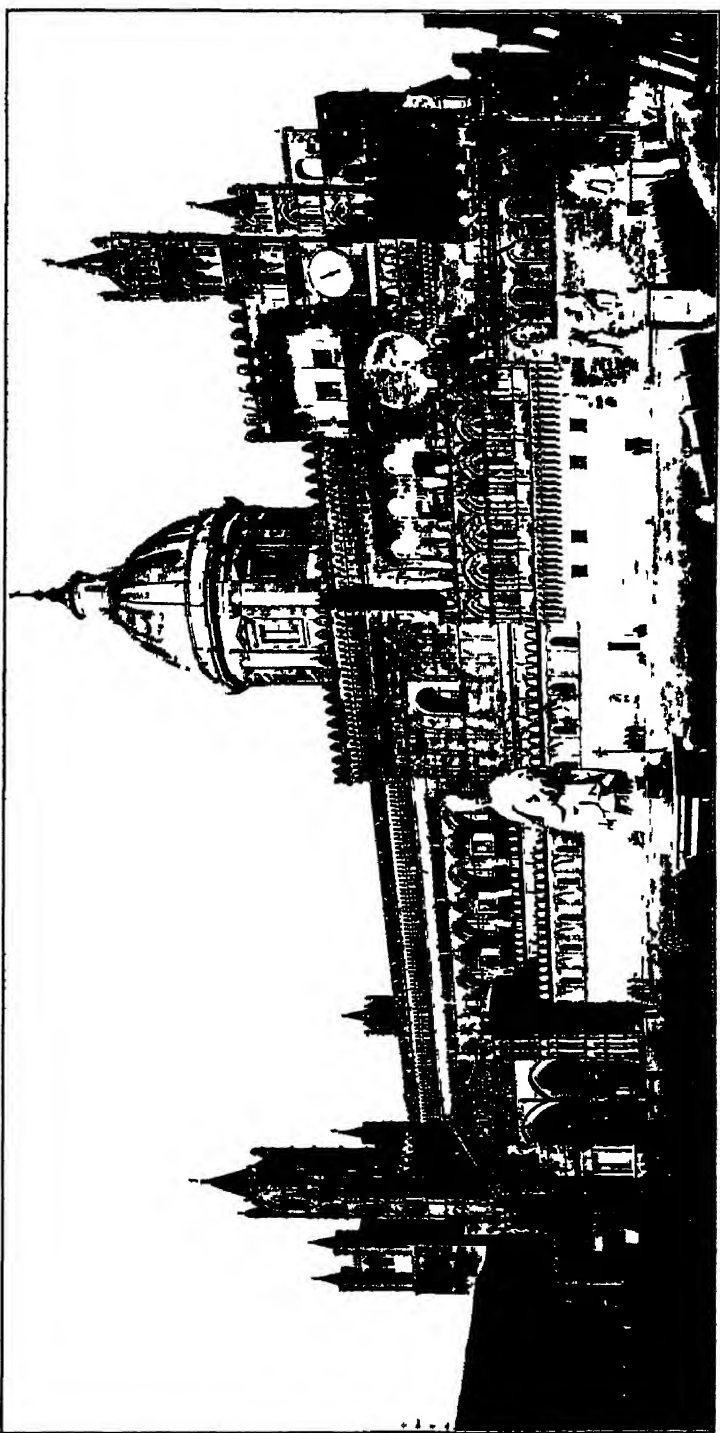
The cathedral of Palermo, the principal entrance of which is shown in Woodcut No. 534, is a building of much later date, that which we now see being principally of the 14th century. Although possessing no dignity of outline or grace of form, it is more richly ornamented



534

Lateral Entrance to Cathedral at Palermo (From Hittorff and Zanth)

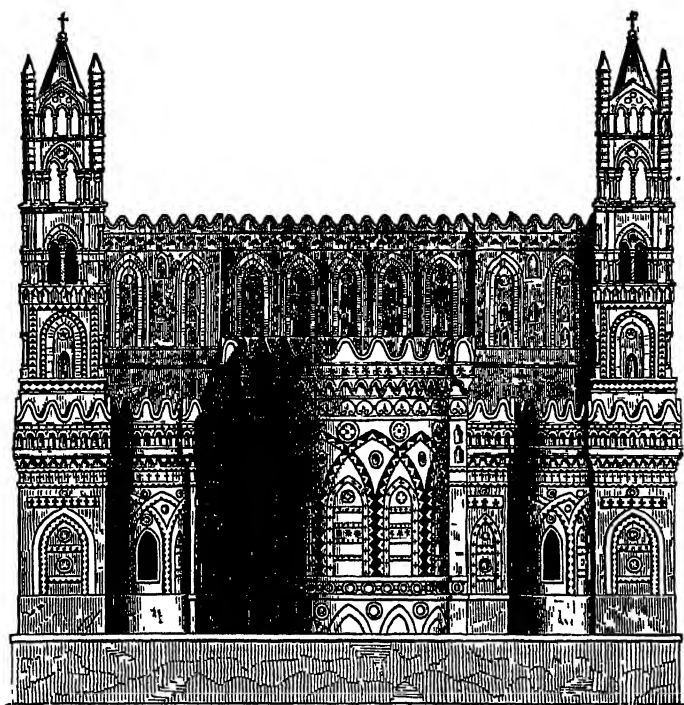
externally with intersecting arches and mosaic decorations than almost any other church of its class. It is richer perhaps and better than the cathedral of Florence, inasmuch as the decorations follow the construction, and are not—as there—a mere unmeaning panelling that might be applied anywhere. All this is more apparent in the apse (Woodcut No. 535) than on the lateral elevation. It converts what would be only a very plain exterior into a very rich and ornamental composition; not quite suited to Northern taste, but very effective in the sunny South. Still the effect of the whole is rather pretty than grand, and as an architectural display falls far short of the bolder masonic expression of the Northern Gothic churches.



CATHEDRAL OF PALERMO, SICILY

After these, one of the most important churches of that age in the island is the cathedral of Cefalu, already alluded to. It was commenced by King Roger 1131. It is 230 ft. long by 90 ft. wide. The choir and transepts are vaulted and groined, the nave has a wooden roof, all the arches are pointed; and with its two western towers it displays more Gothic feeling than any other church in Sicily.

The cathedral at Messina, though closely resembling that at Monreale in plan, has been so altered and rebuilt as to retain very



535.

East End of Cathedral at Palermo. (From Rosengarten)

little of its original architecture. The other churches in the island are either small and insignificant, or, like that at Messina, have been so altered that their features are obliterated.

Besides the Saracenic castles or palaces above mentioned, there are no important civil buildings of Mediæval style in Sicily. There are two cloisters—one at Monreale and the other at Cefalu—both in the style universal in all the countries bordering on the Mediterranean Sea, which will be presently described in speaking of those of Elne, Fontfroide, Arles, and those of St John Lateran at Rome. Their general arrangement consists of small but elegant pillars of Corinthian design, in pairs, supporting pointed arches of great beauty

of form. In many respects this is a more beautiful mode of producing a cloistered arcade than the series of unglazed windows universally adopted in the North. The Southern method presupposes a wooden or at most a tunnel-vaulted roof, as at Arles, whereas all our best examples have intersecting vaults of great beauty, which indeed is the excuse for the windowed arrangement assumed by them. An intermediate course, like that adopted at Zurich (Woodcut No. 722), would perhaps best reconcile the difficulty, but this was only used during the period of transition from one style to the other. The effect, however, of the cloister at Monreale, with the fountain in one of its divisions, and a certain air of Eastern elegance and richness pervading the whole, is not surpassed by any of the examples on the Continent of its own size, though its dimensions do not allow it to compete with some of the larger examples of France, and especially of Spain.

As the employment of the pointed arch so early in Sicily has been much quoted in the controversy regarding the invention of that feature, it may be convenient to state here that the pointed arch was used in the South of France—at Vaison, for instance—at least as early as the 10th century, but only as a vaulting expedient. During the 11th it was currently used in the south, and as far north as Burgundy; and in the 12th it was boldly adopted in the north as a vaulting, constructive and decorative feature, giving rise to the invention of a totally new style of architectural art.

It is by no means impossible that the pointed arch was used by the Greek or Pelasgic colonists about Marseilles at a far earlier date, but this can only have been in arches or domes constructed horizontally. These may have suggested its use in radiating vaults, but can hardly be said to have influenced its adoption. Had it not been for the constructive advantages of pointed arches, the Roman circular form would certainly have retained its sway. It is possible, however, that the northern Franks would never have adopted it so completely as they did had they not become familiar with it either in Sicily or the East. When once they had so taken it up, they made it their own by employing it only as a modification of the round-arched forms previously introduced and perfected.

In Sicily the case is different; the pointed arch there never was either a vaulting or constructive expedient—it was simply a mode of eking out, by its own taller form and by stilting, the limited height of the Roman pillars, which they found and used so freely. It is the same description of arch as that used in the construction of the mosque El-Aksah at Jerusalem in the 8th century; at Cairo in rebuilding that of Amrou in the 9th or 10th and in El-Azhar and other mosques of that city. As such it was used currently in Sicily by the Saracens, and in Palermo and elsewhere became so essential a part of the architecture of the day that it was employed as a matter of course

in the churches ; but it was not introduced by the Normans, nor was it carried by them from Sicily into France, and, except so far as already stated, it had no influence on the arts of France. In fact there is no connection, either ethnographically or architecturally, between the Sicilian pointed arch and the French ; and beyond the accident of the broken centre they have nothing in common.

Although, therefore, it can hardly again be used as evidence in the question of the invention of the pointed arch, the architecture of Sicily deserves a better monography than it has yet been made the subject of. It must, however, be written by some one intimately familiar with the Byzantine, Saracenic, and Romanesque styles. To any one so qualified, Sicily would afford the best field in Europe for tracing the influence of race and climate on architecture : for nowhere, owing in a great measure to its insular position, can the facts be more easily traced, or the results more easily observed.

In one other point of view also the style deserves attention, for from it alone can we fairly weigh the merit of the two systems of internal decoration employed during the Middle Ages. By comparing, for instance, the cathedral at Monreale, with such a building as the Sainte Chapelle at Paris, we may judge whether polychromy by opaque pictures in mosaic, or by translucent pictures on glass, is the more beautiful mode of decorating the interior of a building. The former have undoubtedly the advantage of durability, and interfere less with the architectural effect, but for beauty and brilliancy of effect I have little doubt that the general verdict would be that the latter have at least hitherto been the most successful mode. On the whole, however, it seems that a higher and purer class of art may be developed out of opaque painting than can ever be obtained from transparencies, and if this is so there can be little doubt as to which we ought now to seek to cultivate. The question has never yet been fairly discussed, and examples sufficiently approximating to one another, either in age or style, are so rare that its determination is not easy. For that very reason it is the more desirable that we should make the most of those we have, and try if from them we can settle one of the most important questions which architectural history has left to be determined with reference to our future progress in the art.

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CHAPTER IX.

GOTHIC ARCHITECTURE IN PALESTINE.

CONTENTS

Church of the Holy Sepulchre, Jerusalem—Churches at Abû Gosh and Lydda—
Mosque at Hebron

CHRONOLOGY

DATES		DATES	
Jerusalem taken by the Crusaders	A D 1099	Third Crusade Richard II	A D 1192
Baudouin I.	1100	Frederick II re-enters Jerusalem	1229
Baudouin II.	1118	Re-taken by Sultan of Damascus	1239
Foulques, Count of Anjou	1131	Final overthrow of Christians	1241
Saladin retakes Jerusalem	1187		

It may at first sight appear strange that any form of architecture in Syria should be treated as a part of that of Italy, but the circumstances of the case are so exceptional that there can be little doubt of the correctness of so doing. Gothic architecture was not a natural growth in Palestine, but distinctly an importation of the Crusaders, transplanted by them to a soil where it took no root, and from which it died out when the fostering care of Western protection was removed. In this it is only too true a reflex of the movement to which it owed its origin. The Crusades furnish one of those instances in the history of the world where the conquerors of a nation have been so numerous as entirely to supplant, for a time, the native population and the indigenous institutions of the country. For nearly a century Jerusalem was subject to kings and barons of a foreign race. The feudal system was imported entire, with its orders of knighthood, its "Assises," and all the concomitant institutions which had grown up with the feudal system in Western Europe. With them, as a matter of course, came the hierarchy of the Roman Church, and with it the one style of architecture which they then knew, or which was appropriate to their form of worship.

The one point which is not at first sight obvious is, why the Gothic style in Palestine should be so essentially Italian, with so little admixture of the styles prevalent on the northern side of the Alps. It may have been that then, as now, the Italians settled loosely in the land. We know that the trade of the Levant was at that time in the hands of Venice and other Italian cities, and it is clear that it was

easier to send to Italy for artists and workmen, than to France and Germany, and much more likely that an Italian would undertake the erection of buildings in the East than a Northern architect, whose ideas of Palestine and its ways must have been extremely indistinct. Be this as it may, there is little in the Gothic architecture of Palestine either as regards arrangement or details—except the plan of the church of the Holy Sepulchre—which would excite attention as singular if found in the South of Italy or Sicily, and as little that would not seem out of place if found on our side of the Alps.

HOLY SEPULCHRE.

The principal buildings erected by the Crusaders in Palestine were, as might be expected, the extensive additions made to the church or rather to the group of churches near the Holy Sepulchre—the deliverance of which from the hands of the infidels was the object of that wonderful burst of national enthusiasm.¹

The buildings on the site have been so repeatedly ruined and rebuilt, and so little remains now of their original features prior to the Crusaders' work, that it is only necessary here to state the generally accepted belief that the rotunda (A) shown on the upper part of the plan (Woodcut No. 536) represents the position of the great apse erected by Constantine, round what he considered to be the sepulchre of Christ (marked B on plan). The great basilica which is described by Eusebius,² was erected on the east side of this. This and other buildings were destroyed by Chosroes the Persian in 614, and portions only (those round the Holy Sepulchre) were restored by Modestus in 629. In 1010, the mad Khalif Hakem destroyed Modestus's work, and the rotunda, as shown in Woodcut, was built by the Emperor Constantine Monomachus thirty years later.

When the Crusaders reached Jerusalem, 1099 A.D., the sepulchre appears to have stood in a court open to the sky,³ but "covered over lest rain should fall upon it," surrounded with an aisle and with five chapels (C.D.E.F.G.) attached to it. These the Crusaders incorporated⁴ with

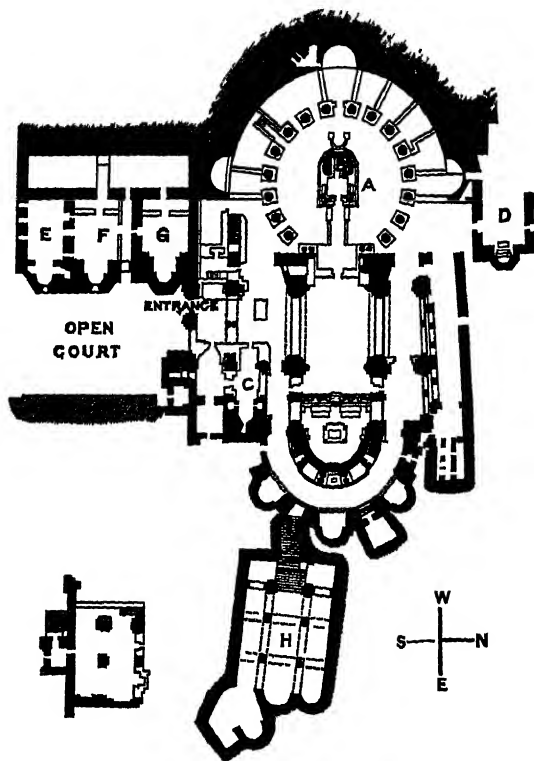
¹ For a complete description of the same, see 'The Architectural History of the Church of the Holy Sepulchre at Jerusalem,' by Prof Willis, 1849, the publications of the Palestine Exploration Fund, and the 'Holy Places of Jerusalem,' by Prof Hayter Lewis.

² Eusebius, 'Vita Constantini,' lib. iii. ch. xxviii

³ Sæwulf, 'Peregrinatio,' &c. (A.D. 1102-3), p 83

⁴ A section of the church is given in Prof. Willis's work compiled partly from Bernardino's work ('Trattato delle Pianta al Imagini de sacri Edifizi di Terra Sancta,' 1620), corrected by dimension taken by Mr. J. J Scoles and partly from models in the British Museum and elsewhere.

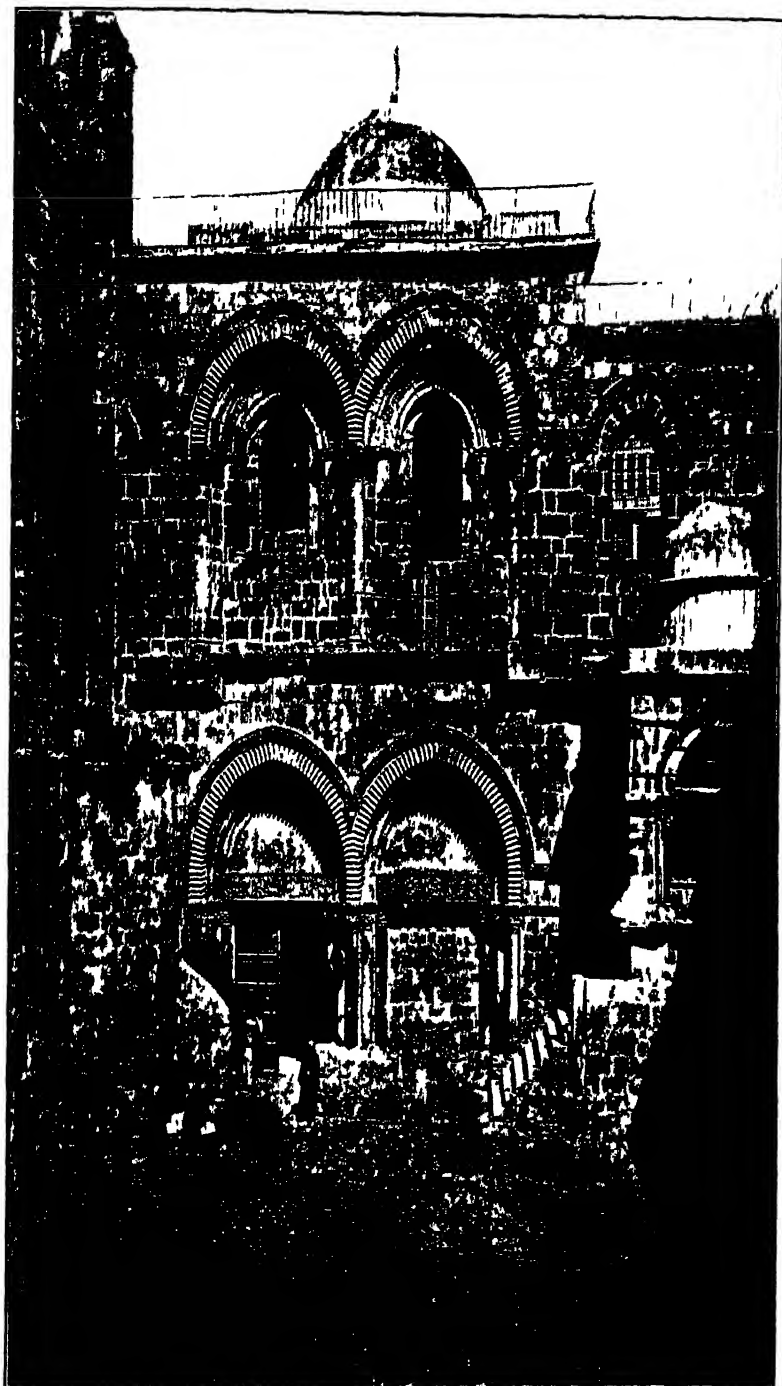
their additions and alterations, which amounted almost to a rebuilding of the church. The plan (Woodcut No. 536) indicates in black those portions found by the Crusaders; in half tone, those which were built by them, and in outline only the subsequent additions made before and after the great fire of 1808.¹ Though entirely at variance with the arrangement of the basilica and independent tomb-house as adopted by Constantine some seven centuries earlier, it would seem that the object of the Crusader was to preserve intact the Rotunda and the



536.

Plan of the Church of the Holy Sepulchre. Scale 100 ft. to 1 in.

Holy Sepulchre. The principal entrance led into what was virtually the main transept, with the Rotunda on the west side and the choir and apse on the east. At a later period the space within the crossing was enclosed for the Greek Church, so that the Rotunda now appears to be the nave, and it is in that sense that the church has been so often copied. The plan was commonly employed in the North of Europe (Woodcuts Nos. 790 to 795), and bloomed into perfection at Cologne in the church of St. Gereon (Woodcut No. 741). It is also



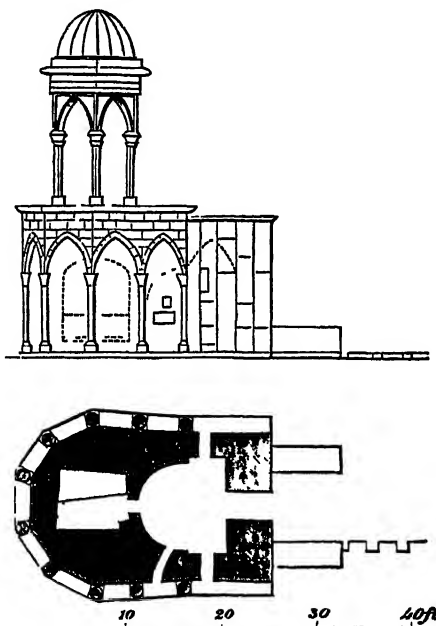
CHURCH OF THE HOLY SEPULCHRE, JERUSALEM

found at Little Maplestead (Woodcut No. 847), Zara (Woodcut No. 486), in the churches of the Temple in London, of St. Sepulchre at Cambridge, and elsewhere. In all these instances it consists of a circular nave leading to a rectangular choir terminated by an apse. Though primarily sepulchral in its origin, it is used in all these places without any reference to its original destination, and had become a recognised form of Christian church for the ordinary purposes of worship

Though containing so many objects of interest, the church itself is not large, measuring 245 ft long internally, exclusive of the crypt and chapel of the cross, which being at a much lower level must have formed a crypt under the nave and aisles of the basilica.

So far as can be judged from the information which remains to us, the style (before the fire of 1808, after which the Rotunda was entirely rebuilt) was tolerably homogeneous throughout. The transept, now converted into a choir, and the apse, which, though commenced in 1103, were not completed before 1169, show progress in style. All the constructive arches in this part of the building are pointed—but the decorative portions still retain the circular form.

Owing to its situation, and its being so much encumbered by other buildings, the only part of the exterior which makes any pretension to architectural magnificence is the Southern double portal, erected apparently between the years 1140 and 1160. This is a rich and elegant example of the style of ornamentation prevalent in Sicily and Southern Italy in the 12th century, but among its most elaborate decoration, are two rich cornices of classical date, built in unsymmetrically as string-courses, amongst details belonging to the time of the Crusades. From their style these cornices undoubtedly belong to the age of Constantine, and are probably fragments of some ancient buildings. At an earlier age such fragments would probably have been more extensively used up; but in the 12th century the architects had

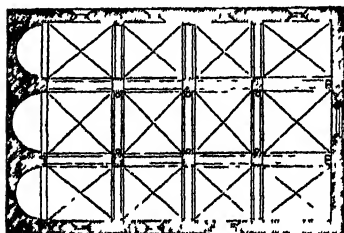


537 Holy Sepulchre—Plan and Elevation as it existed before the fire in 1808 (From Bernardino Amico.)

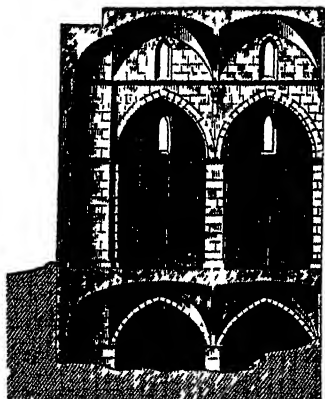
acquired confidence in themselves and their own style, and despised classical arrangements both in plan and in detail.

The sepulchre itself seems to have been rebuilt, about the year 1555,¹ or at least so thoroughly repaired that it is difficult to say what its exact original form may have been. Probably it did not differ materially from that shown in the woodcut, since that resembles the style of the 12th much more than that of the 16th century.

Although the church of the Holy Sepulchre was, naturally, by far the greatest work undertaken by the Crusaders, there are some six or seven other churches in Jerusalem,² or its immediate vicinity, which were erected during the 12th century. The most complete of these at the present day is that of St. Anne - now in course of thorough repair by the French Government.*



538. Plan of Church at Abû Gosh. (From De Vogüé.) Scale 50 ft. to 1 in.



539. East End of Church at Abû Gosh. (From De Vogüé.)

It is a small church, 112 ft. long by 66 ft. wide internally, divided into three aisles, each terminating in an apse, and covered with intersecting vaults, showing strongly-marked transverse ribs of the usual Italian pattern. It has also a small dome on the intersection between the nave and transept. The windows are small and without tracery. It is, in fact, a counterpart of the usual Italian church of the age. The same remarks apply to St. Marie la Grande, St. Marie Latino, the Madeleine, and other churches which the Christians built in their quarter of the town during their occupation, to replace those of which the Moslems had deprived them.

One of the most perfect churches of this age, out of Jerusalem, is that at Abû Gosh - the ancient Kirjath-Jearim (Woodcuts Nos. 538, 539). Externally it is a rectangle, 86 ft. by 57 ft., with three apses which do not appear externally. Under the whole is an extensive crypt. Though small, it is so complete, and so elegant in all its details,

¹ Quarosimus, 'Elucidatio,' ii p. 386.

² All these are carefully described and

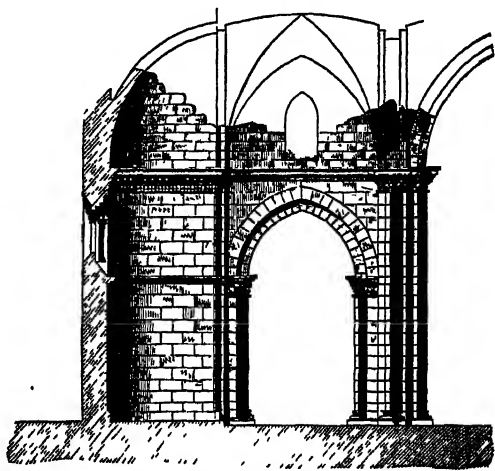
by De Vogüé in his

beautiful work entitled, 'Les Églises de la Terre Sainte,' Paris, 1860.

* See Appendix, note 2.

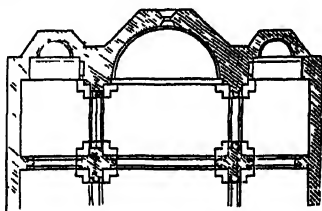
that it would be difficult to find anywhere a more perfect example of the style. As it now stands it is very much simpler and plainer than any Northern example of the same age would be; but it originally depended on painting for its decoration, and traces of this may still be seen on its desecrated walls. It is now used as a cattle-shed.¹ The church at Ramleh is one of the largest, and must originally have been one of the finest, of these Syrian churches. It is now used as a mosque, and the consequent alteration of its arrangement, with plaster and whitewash, have done much to destroy its architectural effect.

At Sebaste there is one as large as that at Ramleh—160 ft. by 80 ft.—and showing a



540. East End of Church at Lydda (From De Vogüé)

more completely developed Gothic style than those at Jerusalem. At Lydda there is another very similar in detail to that last mentioned. Though now only a fragment, it is one of singular elegance, and shows a purity of detail and arrangement not usual in Northern churches of that age. De Vogüé is of opinion that both the last-named churches must have been completed before the year 1187. It is hard, however, to believe that an Italian Gothic style could have attained that degree of perfection so early, and if the date assigned is correct, it is evident that the pointed style was developed earlier in the East than in the West, a circumstance which, from our knowledge of what had happened in Armenia and elsewhere, is by no means improbable.



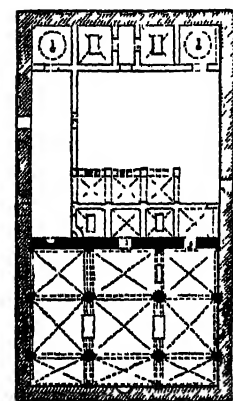
541. Apse of Church at Lydda
Scale 50 ft. to 1 in.

The date assigned to these churches is rendered more probable by the existence of a Gothic building, certainly as advanced as any of those mentioned, within the enclosure of the mosque at Hebron. If this was a work of the Crusaders it must have been built before 1187, since the Christians never had access to the place after their defeat at Tiberias. If not erected by them, we are forced to assume that the Moslems employed some Christian renegades or slaves to erect a

¹ Consult the Appendix, note 2.

mosque on the spot, in their own style of architecture. This is, however, by no means improbable, since it is the only Christian church (if

it be one) in Palestine which has no apse, though there would have been no difficulty in introducing three apses in the same manner as at Abû Gosh (Woodcut No. 538) had it been so desired. It should also be remarked that the three aisles point southward towards Mecca, and that, except in style, it has all the appearance of a mosque. Both Christian and Mahometan tradition are silent as to its erection, so that the determination of the question must depend on a more careful examination than has yet been possible. Whichever way it may be decided, it is a curious question. It is either a Christian building without the arrangement elsewhere universally indispensable, or it is a Moslem mosque in a Christian style of architecture.



542 Plan of Mosque at Hebron
Scale 100 ft to 1 in.

The Gothic portion is shaded black,
the Jewish hatched, and the Mahom-
etan outlined.

If the former, the complete development of the Italian pointed style of architecture in the East must be fixed at not less than half a century anterior to that in the West.

BOOK III.

FRANCE.

CHAPTER I.

CONTENTS.

Division of subject—Pointed arches—Provence—Churches at Avignon, Arles, Alai, Fontfroide, Maguelonne, Vienne—Circular churches—Towers—Cloisters.

CHRONOLOGY.

DATES.		DATES.	
Charlemagne	A.D. 768-813	Philip III., the Hardy	A.D. 1270
Rollo, first Duke of Normandy	911	Philip IV., or the Fair	1285
Hugh Capet.	987	Philip VI. of Valois	1328
William II. of Normandy, or the Conqueror.	1055-1086	Battle of Crecy	1346
Henry I. of France	1031	John II., the Good.	1350
Philip I., or l'Amoureux	1060	Charles V., the Wise	1364
Louis VI., or le Gros	1108	Charles VI., the Beloved	1380
Louis VII., or le Jeune	1137	Charles VII., the Victorious.	1422
St. Bernard of Clairvaux	1091-1153	Joan of Arc	1412-1431
Philip II., or l'Auguste	1180	Louis XI.	1461
Louis VIII., or the Lion	1223	Charles VIII.	1483
Louis IX., or the Saint	1226	Louis XII.	1498
		Francis I.	1515

To those who do not look beyond the present, France appears to be one of the most homogeneous of all the countries of Europe—inhabited by a people speaking one language, professing one religion, governed by the same laws, and actuated by the same feelings and aspirations; yet it certainly is not so in reality, and in the Middle Ages the distinctions between the various races and peoples were strongly marked and capable of easy definition. Wars, persecutions, and revolutions, have done much to obliterate these, and the long habit of living under a centralised despotism has produced a superficial uniformity which hides a great deal of actual diversity. The process of fusion commenced apparently about the reign of Louis the Saint (A.D. 1226), and has gone on steadily ever since. Before his time France was divided into six or eight great ethnographic provinces which might now be easily mapped out, though their boundaries frequently differed widely from the political division of the land.

No systematic attempt has yet been made to construct an ethnographic map of the country from the architectural remains, though it is easy to see how it might be done. What is wanted is that some competent archæologist should do for the ethnography of France what Sir W. Smith did at the end of the last century for the geology of England. Like that early pioneer of exact knowledge in his peculiar department, he must be content to wander from province to province, from village to village, visiting every church, and examining every architectural remain, comparing one with another, tracing their affinities, and finally classifying and mapping the whole. It is probable that the labour of one man would hardly suffice for this purpose. Monographs would be required to complete the task, but it is one of such singular interest that it is hoped it may soon be undertaken.

One of the great difficulties in attempting anything of the sort at present is the nomenclature. When the science is further advanced, such names as Silurian, Cambrian, &c., will no doubt be invented, but at present we must be content with the political name which seems most nearly to express the ethnographical distribution; though in scarcely a single instance will these be found strictly correct, all in consequence being open to adverse criticism. In France it frequently happened that two or more ethnographic provinces were united under one sceptre—eventually all were merged into one—and during the various changes that took place in the Middle Ages, it was only by accident that the political boundary exactly agreed for any great length of time with the ethnographical.

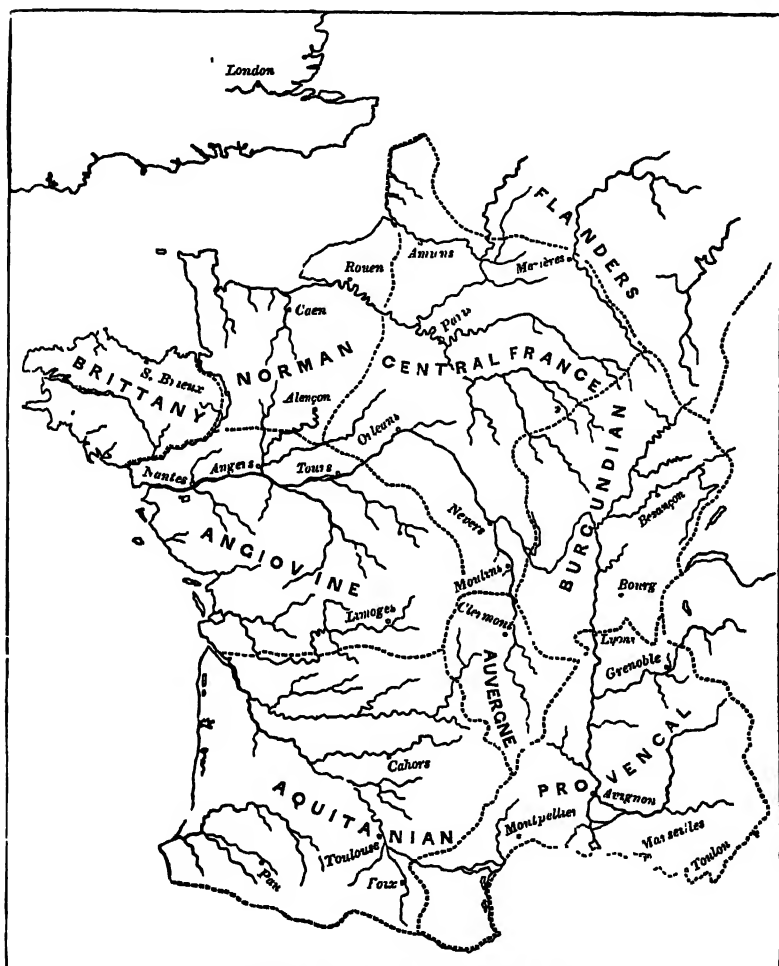
In Germany, on the contrary, a single race is and was cut up into numerous political divisions, so that it becomes, from the opposite cause alone, equally difficult to apply a nomenclature which shall correctly represent the facts of the case.

In such a work as this it would be manifestly absurd to attempt to adjust all this with anything like minute accuracy, but the principal features are so easily recognised that no great confusion can arise in the application of such names as are usually employed, and it is to be hoped that before long a better system of nomenclature will be invented and applied.

We may rest assured of one thing, at all events, which is that the architectural remains in France are as sufficient for the construction of an ethnographic map of that country as the rocks are for the compilation of a geological survey. If the one opens out to the student an immense expanse of scientific knowledge, the other is hardly of less interest, though in a less extended field. There are few studies more pleasing than that of tracing the history of man through his works, and none bring the former condition of humanity so vividly back to us as those records which have been built into the walls of their temples

or their palaces by those who were thus unconsciously recording their feelings for the instruction of their posterity.

The first thing that strikes the student in examining architecturally



542.

Diagram of the Architectural Divisions of France.¹

the map of France is the recurrence of the same phenomenon as was remarked in that of Italy, a division into two nearly equal halves by

¹ A small chart of the same sort has been published by M. de Caumont,* which, though an improvement, still leaves much to be desired; but until every church is examined, and every

typical specimen at least published, it is impossible to mark out more than the general features of the chart. Imperfect, however, as they are in this one, they are still more numerous and more detailed than it will be easy for us to follow and to trace out in the limited space of this work.

* 'Abécédraire d'Architecture,' p. 174.

a boundary line running east and west. In both countries, to the southward of this line the land was occupied by a Romanesque people who, though conquered, were never colonised by the Barbarians to such an extent as to alter their blood or consequently the ethnographic relations of the people. North of the line the Goths and Lombards in Italy, and the Franks in Gaul, settled in such numbers as to influence very considerably the status of the races, in some instances almost to the obliteration of their leading characteristics.

In France the boundary line follows the valley of the Loire near its northern edge till it passes behind Tours; it crosses that river between that city and Orleans, follows a somewhat devious course to Lyons, and up the valley of the Rhone to Geneva.

In the Middle Ages the two races were roughly designated as those speaking the *Langue d'oc* and the *Langue d'oïl*—somewhat more correctly those to the south were called Romance,¹ those to the north Frankish; but the truth is, the distinction is too broad to be now clearly defined, and we must descend much more into detail before any satisfactory conclusion can be arrived at.

On the south of the line, one of the most beautiful as well as the best defined architectural provinces is that I have ventured to designate as Provence or Provençal. Its limits are very nearly coincident with those of *Gallia Narbonensis*, and “Narbonese” would consequently be a more correct designation, and would be adopted if treating of a classical style of art. It has, however, the defect of including Toulouse, which does not belong to the province, and consequently the name affects an accuracy it does not possess. It may, therefore, be better at present to adopt the vague name of the “Provence” *par excellence*, especially as Provençal is a word applied by French authors to literary matters much in the sense it is here used to define an architectural division. The whole of the south coast of France from the Alps to the Pyrenees belongs to this province, and it extends up the valley of the Rhone as far as Lyons, and is generally bounded by the hills on either side of that river.

Perhaps the best mode of defining the limits of the Aquitanian province would be to say that it includes all those towns whose names end with the Basque article *ac*, consequently indicating the presence at some former period of a people speaking that language or something very closely allied to it, or at all events differing from

¹ The use of this term is a little awkward at first from its having another meaning in English; it has, however, been long used by English etymologists to distinguish the Romance languages, such as Italian, Spanish, and French, from those of Teutonic origin, and is here used in precisely the same sense as applied to architecture—to those styles derived from the Roman, but one degree more removed from it than the early phase of the Romanesque.

those of the rest of France. It is only on the eastward that the line seems difficult to define. There are some towns, such as Barjac, Quissac, Gignac, in the valley of the Rhone, in situations that would seem to belong to Provence, and until their churches are examined it is impossible to say to which they belong. On the south Aquitania is bounded by the Pyrenees, on the west by the sea, and on the North by a line running nearly straight from the mouth of the Garonne to Langeac, near to Le Puy-en-Velay.

The third is designated that of Anjou, or the Angiovine, from its most distinguished province. This includes the lower part of the Loire, and is bounded on the north-east by the Cher. Between it and the sea is a strip of land, including the Angoumois, Saintonge, and Vendée, which it is not easy to know where to place. It may belong, so far as we yet know, to either Aquitania or Anjou, or possibly may deserve a separate title altogether; but in the map it is annexed for the present to Poitou or the Angiovine province.

In Brittany the two styles meet, and are so mixed together that it is impossible to separate them. In that district there is neither pure Romance nor pure Frankish, but a style partaking of the peculiarities of each without belonging to either.

Besides these, there is the small and secluded district of Auvergne, having a style peculiarly its own, which, though certainly belonging to the southern province, is easily distinguished from any of the neighbouring styles, and is one of the most pleasing to be found of an early age in France.

Beyond this to the eastward lies the great Burgundian province, having a well-defined and well-marked style of its own, influenced by or influencing all those around it. Its most marked characteristic is what may be called a mechanical mixture of the classical and mediæval styles without any real fusion. Essentially and constructively the style is Gothic, but it retained the use of Corinthian pilasters and classical details till late in the Middle Ages: Burgundy was also in the Middle Ages the country of monasticism *par excellence*—a circumstance which had considerable influence on her forms of art.

Taking, then, a more general view of the southern province, it will be seen that if a line were drawn from Marseilles to Brest, it would pass nearly through the middle of it. At the south-eastern extremity of such a line we should find a style almost purely Romanesque, passing by slow and equal gradations into a Gothic form at its other terminal.

On turning to the Frankish province the case is somewhat different. Paris is here the centre, from which everything radiates: and though the Norman invasion, and other troubles of those times, with the rebuilding mania of the 13th century, have swept away nearly all traces of the early buildings, still it is easy to see how the

Gothic style arose in the Isle of France, and how it spread from thence to all the neighbouring provinces.

In consequence, however, of the loss of its early buildings, and of its subsequent pre-eminence and supercession of the earlier styles, the description of its features naturally follows that of the subordinate provinces, and concludes the history of the mediæval styles in France.

Not to multiply divisions, we may include in the Northern province many varieties that will afterwards be marked as distinct in maps of French architecture, especially at the south-east, where the Nivernois and Bourbonnois, if not deserving of separate honours, at least consist of such a complete mixture of the Frankish and Burgundian with the Southern styles, that they cannot strictly be said to belong to any one in particular, though they partake of all. The Northern, however, is certainly the predominant element, and with that therefore they should be classed.

To the westward lies the architectural province of Normandy, one of the most vigorous offshoots of the Frankish style. and from the power of the Norman dukes in the 11th and 12th centuries, and the accidental circumstance of its prosperity in those centuries when the rest of France was prostrate from their ravages and torn by internal dissensions, the Romanesque style shows itself here with a vigour and completeness not found elsewhere. It is, however, evidently only the Frankish style based remotely on Roman tradition, but which the Barbarians used with a freedom and boldness which soon converted it into a purely national form. This soon ripened into the complete Gothic style of the 13th century, which was so admired that it soon spread over the whole face of Europe, and became the type of all Gothic architecture

Alsace is not included in this enumeration, as it certainly belongs architecturally to Germany. Lorraine too is more German than French, and if included at all, must be so as an exceptional transitional province. French Flanders belonged, in the Middle Ages, to the Belgian provinces behind it, and may therefore also be disregarded at present: but even after rejecting all these, enough is still left to render it difficult to remember and follow all the changes in style introduced by these different races, and which marked not only the artistic but the political state of France during the Middle Ages, when the six territorial peers of France, the Counts of Toulouse, Aquitaine, Normandy, Burgundy, Champagne, and Flanders, represented the six principal provinces of the kingdom, under their suzerain, the Count or King of Paris. These very divisions might now be taken to represent the architectural distinctions, were it not that the pre-eminence of these great princes belongs to a later epoch than the architectural divisions which we have pointed out, and which we must now describe somewhat more at length.

POINTED ARCHES.

Before proceeding to describe these various styles in detail, it may add to the clearness of what follows if the mode in which the pointed arch was first introduced into Christian architecture is previously explained. It has already been shown that the pointed arch with radiating voussoirs was used by the Assyrians as early as the time of Sargon in the 8th century B.C., and by the Ethiopians as early as that of Tirhakah. The Etrurians and Pelasgi used the form probably twelve centuries before the Christian era, but constructed it with horizontal courses. To come nearer, however, to our own time, the Saracens certainly adopted it at Cairo in the first century of the Hegira,¹ and employed it generally if not universally, and never apparently used a round arch after the erection of the mosque of Ebn Tulûn, A.D. 879.

The Romanesque traditions, however, prevented the Christians from adopting it in Europe till forced to do it from constructive necessities, and the mode of its introduction into the early churches in Provence renders them singularly important in enabling us to arrive at a correct solution of this much mooted question.²

It is hardly worth while discussing whether the form was borrowed from the East, where it had been used so long before it was known—or at least before we are aware of its being known—in Europe. It may be that the Pelasgic Greeks left examples of it in Provence, or that persons trading to the Levant from Marseilles became familiar with its uses; or it may be, though very unlikely, that it was really re-invented for the purposes to which it was applied.

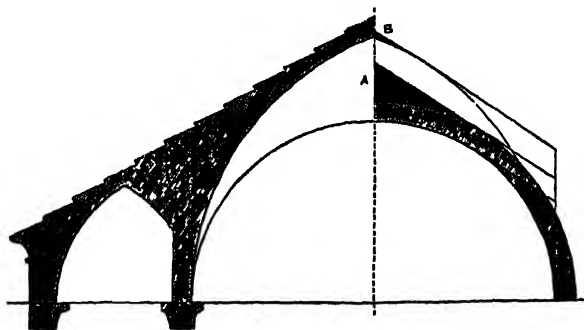
In whatever way it was introduced, it at least seems certain that all the churches of Provence, from the age of Charlemagne to that of St. Louis, were vaulted, and have their vaults constructed on the principle of the pointed arch. It has nevertheless long been a received dogma with the antiquaries of France, as well as with those of England, that the pointed arch was first introduced in the 12th century—the first example being assumed to be the work of Abbot Suger at St. Denis (1144–52), the result of which is that all who have written on the subject of Provençal architecture have felt themselves forced to

¹ There seems to be some doubt about the age of the pointed arches in the mosque of Amrû; the earliest authenticated arches of that form are found in the Nilometer in the island of Roda which is fixed by Mr Lane as 861 A.D., eighteen years older than that of Tulûn.—Ed.

² For the detail of the argument I must refer the reader to a paper read by me to the Institute of British Architects on June 18th, 1849, and published in the 'Builder,' and other papers of the time. See also a paper read in the same place in the following month (July, 1849), by Sir Gardner Wilkinson.

ascribe the age of the churches in question, or at least of their roofs, a date subsequent to this period.

The use to which the Provençal architects applied the pointed arch will be evident from the annexed diagram, the left-hand portion of which is a section of the roof of one of the churches at Vaison. The object evidently was to lay the roof or roofing-tiles directly on the vault, as the Romans had done on their domes, and also, so far as we know, on those of their thermæ. Had they used a circular vault for this purpose, it is evident, from the right-hand side of the diagram, that to obtain a straight-lined roof externally, and the necessary watershed, it would have been requisite to load the centre of the vault to a most dangerous extent, as at A; whereas with the pointed arch it only required the small amount of filling up shown at B, and even that might have been avoided by a little contrivance if thought necessary.



544

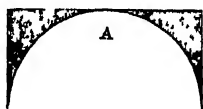
Diagram of Vaulting. South of France

By adopting the pointed form the weights are so distributed as to ensure stability and to render the vault self-supporting. It has already been observed that the Gothic architects everywhere treated their vaults as mere false ceilings, covering them with a roof of wood—an expedient highly objectionable in itself, and the cause of the destruction, by fire or from neglect, of almost all the churches we now find in ruins all over Europe, whereas, had they adhered either to the Roman or Romance style of roofing, the constant upholding hand of man would not have been required to protect their buildings from decay.

The one obstacle in the way of the general adoption of this mode of roofing was the difficulty of applying it to intersecting vaults. The Romans, it is true, had conquered the difficulty, so had the Byzantine architects, as we have already seen, displaying the ends of the vaults as ornaments, and even at St. Mark's, Venice, this system is adopted, and with the additional advantage of the pointed arch might have been carried further. Still it must be confessed that it was not easy—that it required more skill in construction and a better class of masonry

than was then available to do this efficiently and well. The consequence is, that all the Romance pointed vaults are simple tunnel-vaults without intersections, and that the Gothic architects, when they adopted the form, slurred over the difficulty by hiding the upper sides of their vaults beneath a temporary wooden roof, which protected them from the injuries of the weather. This certainly was one of the greatest mistakes they made had they carefully profiled and ornamented the exterior of the stone roofs in the same manner as they ornamented the inside, their buildings would have been not only much more beautiful, but much more permanent, and the style would have been saved from the principal falsity that now deforms it. Even as it is, if we wished intelligently to adapt the Gothic to our purposes, instead of merely copying it, this is one of the points to which we ought first to turn our attention.

Another circumstance which may be alluded to here, when speaking on this subject, which led to the adoption of the pointed arch at an early age in the southern provinces of France, was the use of domes as a roofing expedient. These, it is true, are not found in Provence,



546.

Fig. 1.



Fig 2



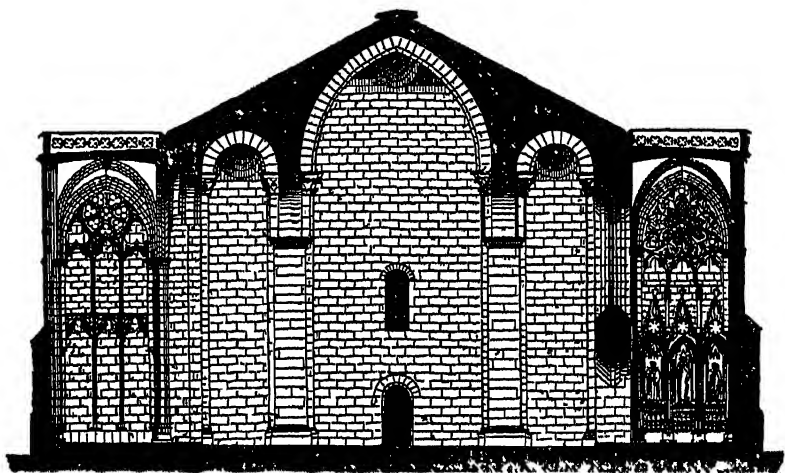
Fig 3.

but they are common in Aquitaine and Anjou—some of them certainly of the 11th century, and there can be little doubt but that these are not the earliest, though their predecessors have perished or have not yet been brought to light

There is no one who has studied the subject who is not aware how excellent, as a constructive expedient, the pointed arch is as applied to intersecting vaults, but it is not so generally understood why it was equally necessary in the construction of domes. So long as these rested on drums rising from the ground the circular form sufficed; but when it became necessary to rest them on pendentives in the angles of square or octagonal buildings, the case was widely different. The early Byzantine architects—in Sta. Sophia, for instance—did fit pendentives to circular arches, but it was with extreme difficulty, and required very great skill both in setting out and in execution. But the superiority of the pointed form was perceived at an early date; and the Saracens, who were trammelled by no traditions, adopted it at once as a doming expedient and adhered to it as exclusively as the Gothic architects did in the construction of their vaults—and for the same reason—simply because it was the best mode of construction.

It is easy to explain why this should be so. In the diagram on the preceding page, fig. 1 represents the pendentives of a dome resting on circular arches. At *A* they become evanescent, and for some distance from the centre are so weak that it is only by concealed construction that they can be made to do their work. When the pointed arch is introduced, as in fig. 2, not only is great freedom obtained in spacing, but the whole becomes constructively correct; when, as in fig. 3, an octagonal arrangement is adopted, the whole becomes still more simple and easy, and very little adjustment is required to fit a dome to an octagon: and if the angles are again cut off, so as to form a polygon of 16 sides, all the exigencies of construction are satisfied.

At St. Front, Périgueux, at Moissac, and at Loches, we find the pointed arch, introduced evidently for this purpose, and forming a class



546. Section of Church at Carcassonne, with the outer aisles added in the 14th century. No scale.

of roofs more like those of mosques in Cairo than any other buildings in Europe. It is true they now look bare and formal—their decorations having been originally painted on stucco, which has peeled off¹; but still the variety of form and perspective they afford internally, and the character and truthfulness they give to the roof as seen from without, are such advantages that we cannot but regret that these two expedients of stone external roofs and domes were not adopted in Gothic. Had the great architects of that style in the 13th century carried out these with their characteristic zeal and earnestness, they might have left us a style in every respect infinitely more perfect and more beautiful than the one they invented, and which we are copying so servilely, instead of trying, with our knowledge and means of construction, to repair the errors and omissions of our forefathers, and out of the inheritance they have left us to work out something more beautiful

¹ See Appendix, note 4.

and more worthy of our greater refinement and more advanced civilisation.

The practice of the Greeks in respect to their roofs was a curious contrast to that of the mediæval architects. Their architecture, as before remarked, being essentially external, while that of the Middle Ages was internal, they placed the stone of their roofs on the outside, and took the utmost pains to arrange the covering ornamentally; but they supported all this on a framework of wood, which in every instance has perished. It is difficult to say which was the greater mistake of the two. Both were wrong without doubt. The happy medium seems to be that which the Romance architects aimed at—a complete homogeneous roof, made of the most durable materials and ornamented, both externally and internally, and there can be little doubt but that this is the only legitimate and really artistic mode of effecting this purpose, and the one to which attention should now be turned.¹

This early mode of employing the pointed arch is so little understood generally that, before leaving this branch of the subject, it may be well to quote one other example with a perfectly authentic date.

The Church of St. Nazaire at Carcassonne was dedicated by Pope Urban II. in 1096. It was not then quite complete, but there seems no doubt but that the nave, as we now find it, was finished by the year 1100. As will be seen from the annexed section, the side aisles and all the openings are constructed with round arches; but the difficulty of vaulting the nave forced on the architects the introduction of the pointed arch. It is here constructed solid with flat ribs over each pillar, and without any attempt to pierce it for the introduction of light; and as the west end is blocked up—fortified in fact—the result is gloomy enough.

This example is also interesting when looked at from another point of view. If we turn back to Woodcuts Nos. 187 and 188, and compare them with this section, we shall be able to gauge exactly the changes which were introduced and the progress that was made, during the 1000 years that elapsed between the erection of these two buildings. In the plan of the temple of Diana at Nîmes, we have the same three-aisled arrangement as at Carcassonne. Their dimensions are not very dissimilar; the nave at Nîmes is 27 ft. wide, the aisles $7\frac{1}{2}$ ft. in the clear. At Carcassonne this becomes 25 ft. and 10 ft. respectively. The aisles are in the early example separated from the nave by screen walls, adorned with pillars which are mere ornaments. In the later

¹ The Scotch and Irish Celts seem to have had a conception of this truth, and in both these countries we find some bold attempts at true stone roofs: the influence, however, of the Gothic races overpowered them, and the mixed roof became universal.

examples the pillars have become the main support of the roof, the wall being omitted between them.

The roof of the nave in both instances is adorned with flat ribs, one over each pillar, but at Nîmes the rib is rather wider than the space between. At Carcassonne the rib occupies only one-fourth of the width of the bay. One of their most striking differences is, that Nîmes displays all that megalithic grandeur for which the works of the Romans were so remarkable, while at Carcassonne the masonry is little better than rubble. It need hardly be added that the temple displays an elegance of detail which charms the most fastidious taste, while the decoration of the church is rude and fantastic, though no doubt picturesque and appropriate. The last remark must not, however, be understood as a reproach to Gothic art, for the choir of this very church, and the two outer arches shown in the woodcut No. 546, were rebuilt in the year 1331, with an elegance of detail which, in a constructive sense, would shame the best classical examples. The nave is a tentative example of a rude age, when men were inventing, or trying to invent, a new style, and before they quite knew how to set about it. The builders of Carcassonne had this temple at Nîmes standing, probably much more complete than it is now, within 120 miles of them, and they were attempting to copy it as best they could. It is probable, however, they had also other models besides this one, and certain that this was not the first attempt to reproduce them. The differences are considerable, but the similarities are so great that we ought rather to be astonished that ten centuries of experience and effort had not shown more progress than we find.

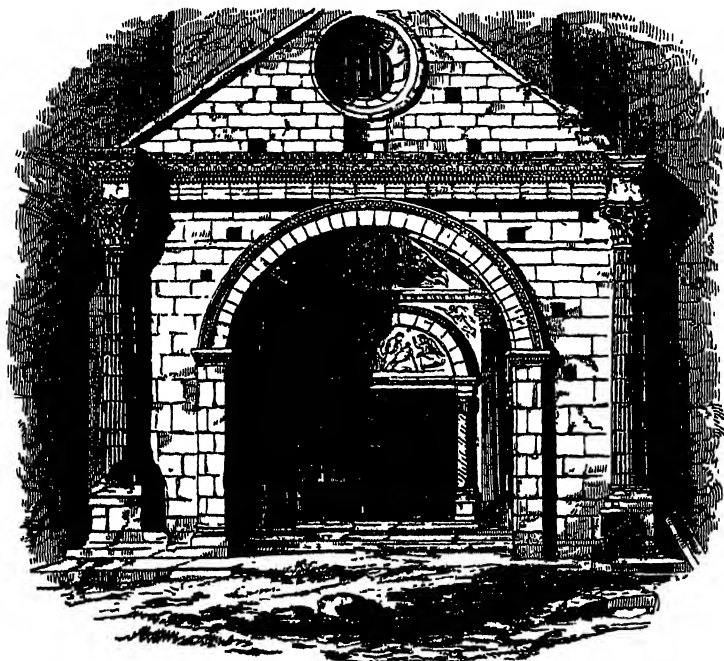
PROVENCE.

There are few chapters in the history of mediæval architecture which it would be more desirable to have fully and carefully written than that of the style of Provence from the retirement of the Romans to the accession of the Franks. This country, from various causes, retained more of its former civilisation through the dark ages than any other, at least on this side of the Alps. Such a history, however, is to be desired more in an archæological than in an architectural point of view; for the Provençal churches, compared with the true Gothic, though numerous and elegant, are small, and most of them have undergone such alterations as to prevent us from judging correctly of their original effect.

Among the Provençal churches, one of the most remarkable is Notre Dame de Doms, the cathedral at Avignon (Woodcut No. 547). Like all the others, its dimensions are small, as compared with those in the northern province, as it is only 200 ft. in length, and the nave about

20 ft. in width The side aisles have been so altered and rebuilt, that it is difficult to say what their plan and dimensions originally may have been

The most remarkable feature and the least altered is the porch, which is so purely Romanesque that it might almost be said to be copied from such examples as the arches on the bridge of Chamas (Woodcut No. 221). It presents, however, all that attenuation of the horizontal features which is so characteristic of the Lower Empire, and cannot rank higher than the Carolingian era ; though it is not quite so easy to determine how much more modern it may be. The same

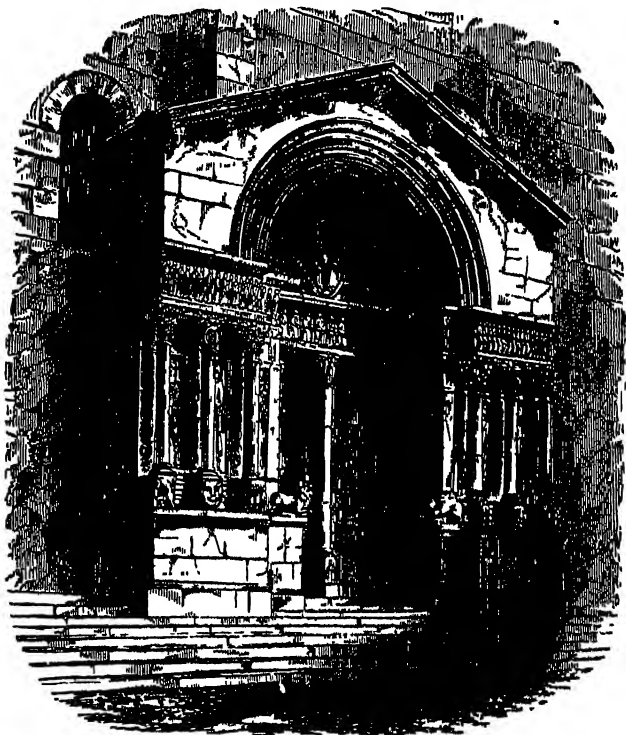


547. Porch of Notre Dame de Ioms, Avignon (from Laborde's 'Monuments de la France')

ornaments are found in the interior, and being integral parts of the ornamentation of the pointed roof, have led to various theories to account for this copying of classical details after the period at which it was assumed that the pointed arch had been introduced. It has been sufficiently explained above, how early this was the case as a vaulting expedient in this quarter ; and that difficulty being removed, we may safely ascribe the whole of the essential parts of this church to a period not long, if at all, subsequent to the age of Charlemagne.

Next perhaps in importance to this, is the church of St. Trophime at Arles, the nave of which, with its pointed vault, probably belongs to the same age, though its porch (Woodcut No. 548), instead of being

the earliest part as in the last instance, is here the most modern, having been erected in the 11th century, when the church to which it is attached acquired additional celebrity by the translation of the body of St. Trophime to a final resting-place within its walls. As it is, it forms a curious and interesting pendant to the one last quoted, showing how in the course of two centuries the style had passed from debased Roman to a purely native form, still retaining a strong tradition of its origin, but so used and so ornamented that, were we not able to



548. Porch of St Trophime, Arles. (From Chapuy, 'Moyen Âge Monumental'.)

trace back the steps one by one by which the porch at Avignon led to that of Arles, we might almost be inclined to doubt the succession.

The porches at Aix, Cuxa, Coustonges, Prades, Valcabre, Tarascon, and elsewhere in this province, form a series of singular interest, and of great beauty of detail mixed with all the rich exuberance of our own Norman doorways, and follow one another by such easy gradations that the relative age of each may easily be determined.

The culminating example is that at St. Gilles, near the mouths of the Rhone, which is by far the most elaborate church of its class, but so classical in many of its details, that it probably is somewhat earlier

than this one at Arles, which it resembles in many respects, though far exceeding it in magnificence. It consists of three such porches placed side by side, and connected together by colonnades—if they may be so called—and sculpture of the richest class, forming altogether a frontal decoration unsurpassed except in the northern churches of the 13th century. Such porches, however, as those of Rheims, Amiens, and Chartres, surpass even these in elaborate richness and in dimensions, though it may be questioned if they are really more beautiful in design.



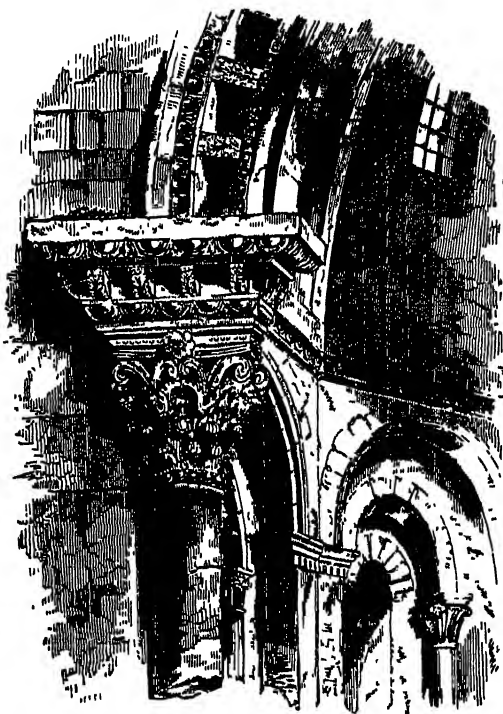
54. Apse of Church at Alet (From Taylor and Nodder, 'Voyages dans l'Antique France.')

There is another church of the Carlovingian era at Orange, and one at Nîmes, probably belonging to the 9th or 10th century; both however very much injured by alterations and repairs. In the now deserted city of Vaison there are two churches, so classical in their style, that we are not surprised at M. Laborde,¹ and the French antiquaries in general, classing them as remains of the classical period. In any other country on this side of the Alps such an inference would be inevitable; but here another code of criticism must be applied to them. The oldest, the chapel of St. Quinide, belongs probably to the 9th or 10th century. It is small but remarkably elegant and classical in the

¹ Laborde, 'Monuments de la France,' vol. i. p. 92, plates cxv. and cxvi.

style of its architecture. The apse is the most singular as well as the most ancient part of the church, and is formed in a manner of which no other example is found anywhere else, so far as I know. Externally it is two sides of a square, internally a semicircle, at each angle of the exterior and in each face is a pilaster, faintly imitated from the Corinthian order, and supporting an entablature that might very well mislead a Northern antiquary into the error of supposing it was a Pagan temple.

The cathedral, though larger, is more Gothic both in plan and



550. Internal Angle of Apse at Alet. (From Taylor and Nodder.)

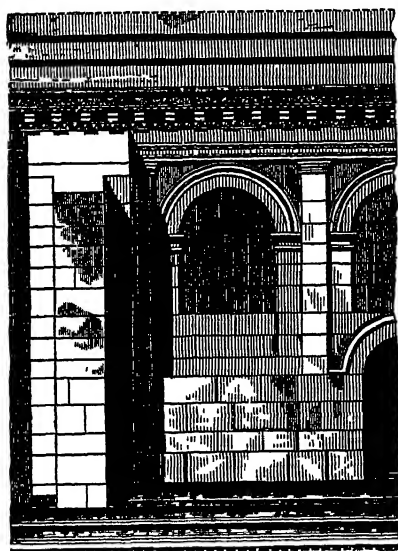
detail, though not without some classical features, and is entirely free from the bold rudeness of style we are so accustomed to associate with the architecture of the 11th century, to which it belongs. Its system of vaulting has already been explained (Woodcut No. 544), but neither of these buildings has yet met with the attention they so richly merit from those who are desirous of tracing the progress of art from the decline of the pure Roman to the rise of the true Gothic styles.

Taking it altogether, perhaps the most elegant specimen of the style is the ruined—now, I fear, nearly destroyed—church of Alet, which, though belonging to the 11th century, was singularly classical in its details, and wonderfully elegant in every part of its design. Of this the apse, as having undergone no subsequent transformation, was by far the most interesting, though not the most beautiful, portion. Externally the upper part was adorned with dwarf Corinthian pilasters, surmounted by a cornice that would not discredit the buildings of Diocletian at Spalato, the lower part was ornamented by forms of more mediæval character, but of scarcely less elegance. In the interior the triumphal arch, as it would be called in a Roman basilica, is adorned by two Corinthian pillars, designed with the bold freedom of

the age, though retaining the classical forms in a most unexpected degree.

The rest of the church is as elegant as these parts, though far less classical, the necessities of vaulting and construction requiring a different mode of treatment, and a departure from conventional forms, which the architect does not seem to have considered himself at liberty to employ in the apse.

Another singularly elegant specimen of this style is the church of St. Paul-Trois-Châteaux, near Avignon (Woodcuts Nos. 551, 552). Its details are so elegant and so classical that it might almost be mistaken for a building of the Lower Empire anterior to Justinian's time. Its plan, however, and the details of its construction, prove that it belongs to a much more modern date; Viollet le Duc would even bring it down as low as the 12th century. It hardly seems possible that it should be so modern as this; but the truth is, the whole history of the Romance style in this province has still to be written.¹ It has not yet been examined with the care it deserves by any competent authority, and till it is we must be content with the knowledge that, in the neighbourhood of the Bouches du Rhône, there exists a group of churches which, drawing their inspiration from the classical remains with which the country is studded, exhibit an elegance of design as exquisite as it is in strange



551. Elevation of half one Bay of the Exterior of St Paul-Trois-Châteaux



552. Half Bay of Interior of St Paul-Trois-Châteaux. (From the 'Archives des Monuments Historiques')

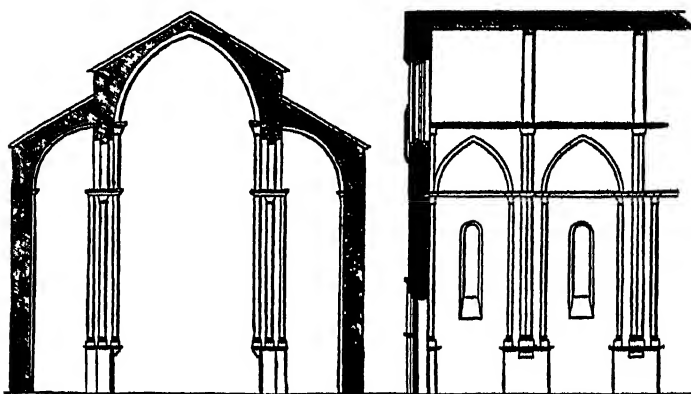
¹ [A valuable and well-illustrated work, entitled 'The Architecture of Provence and the Riviera, Edinburgh, 1888,' by Mr. David MacGibbon, has since added to our knowledge in this respect. Mr.

MacGibbon accepts the date of 12th century for the Church of St. Paul-Trois-Châteaux, and attributes its Roman character to ancient work in the provinces.—ED.]

contrast with the rude vigour—almost vulgarity—which characterised the works of the Normans in the opposite corner of the land at the same period.

Passing from the round-arched to the pointed modifications of this style, the church at Fontfroide, near Narbonne, shows it in its completeness, perhaps better than any other example. There, not only the roof is pointed, but all the constructive openings have assumed the same forms. The windows and doorways, it is true, still retain their circular heads, and did retain them as long as the native style flourished—the pointed-headed opening being only introduced by the Franks when they occupied this country in the time of Simon de Montfort.

The section across the nave (Woodcut 553) shows the form of the central vault, which the longitudinal section shows to be a plain tunnel-vault unbroken by any intersection throughout the whole

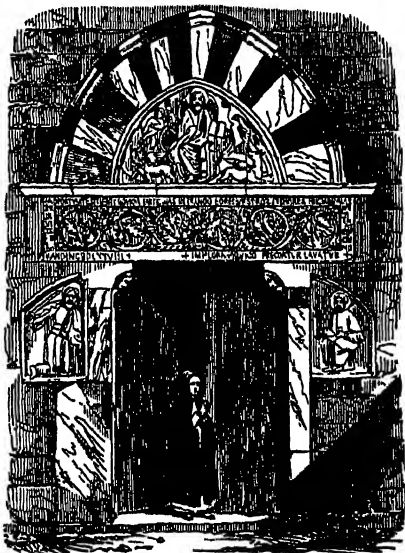


553. Longitudinal and Cross Section of Fontfroide Church. (From Taylor and Nodding.)

length of the nave. The side aisles are roofed with half vaults, forming abutments to the central arches—the advantage of this construction being, as before explained, that the tiles or paving-stones of the roof rest directly on the vault without the intervention of any carpentry. Internally also the building displays much elegant simplicity and constructive propriety. Its chief defect is the darkness of the vault from the absence of a clerestory, which though tolerable in the bright sunshine of the South, could not be borne in the more gloomy North. It was to correct this, as we shall afterwards perceive, that in the North the roof of the aisles was first raised to the height of that of the central nave, light being admitted through a gallery. Next the upper roof the aisles was cut away, with the exception of mere strips or ribs left as flying buttresses. Lastly, the central vault was cut up by intersections, so as to obtain space for windows to the very height of the ridge. It was this last expedient that necessitated the adoption of the pointed-headed window. It might never have been

introduced but for the invention of painted glass, but this requiring larger openings, compelled the architects to bring these windows close up to the lines of the constructive vaulting, and so follow its forms. In the South, however, painted glass never was, at least in the age of which we are now speaking, a favourite mode of decoration, and the windows remained so small as never to approach or interfere in any way with the lines of the vault, and they therefore retained their national and more beautiful circular-headed termination. The modes of introducing light are, however, undoubtedly the most defective part of the arrangements of the Provençal churches, and have given rise to its being called a "cavern-like Gothic"¹ from the gloom of their interiors as compared with the glass walls of their Northern rivals. Still it by no means follows that this was an inherent characteristic of the style, which could not have been remedied by further experience, but it is probable that no ingenuity would ever have enabled this style to display these enormous surfaces of painted glass, the introduction of which was, if not the only, at least the principal motive of all those changes which took place in the Frankish provinces."

It would be tedious to attempt to describe the numerous churches of the 11th and 12th centuries which are found in every considerable town in this province: some of them, however, such as Elne, St. Guillem du Désert, St. Martin de Landres, Vignogoul, Valmagne, Lodève,² &c., deserve particular attention, as exemplifying this style, not only in its earlier forms, but after it had passed into a pointed style, though differing very considerably from that of the North. Among these there is no church more interesting than the old fortalice-like church of Maguelonne, which, from its exposed situation, open to the attacks of Saracenic corsairs as well as Christian robbers, looks more like a baronial castle than a peaceful church. One of its doorways shows a curious admixture of classical, Saracenic, and



554 Doorway in Church at Maguelonne.
(From Renouvier, 'Monuments de Bas Languedoc')

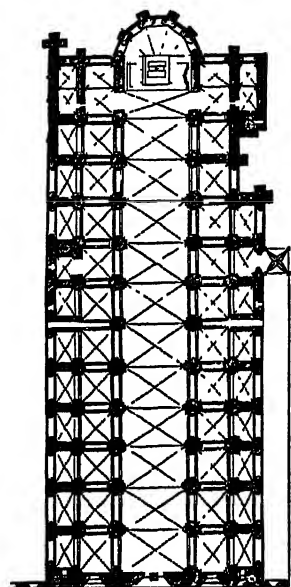
¹ Wood's 'Letters of an architect,' vol. I. p. 168.

² See Appendix, note 3.

³ These are all illustrated more or less completely by Renouvier, 'Monuments de Bas Languedoc.' Montpellier, 1840.

Gothic taste, which could only be found here ; and as it bears a date (1178), it marks an epoch in the style to which it belongs.

Had it been completed, the church of St. Gilles would perhaps have been the most splendid of the province. Its portal has already been spoken of, and is certainly without a rival, and the lower church, which belongs to the 11th century, is worthy of its magnificence. It was, however, either never finished, or was subsequently ruined along with the upper church, which was commenced in the year 1116 by Raymond IV., Count of St Gilles. This too was probably never completed, or, if it was, it was ruined in the wars with the Huguenots. Even in its present state, and though wanting the richness of the earlier examples, it perhaps surpasses them all in the excellence of its masonry, and the architectural propriety of all its parts.



555 Cathedral, Vienne. (From Wiebeking) Scale 100 ft. to 1 in

Besides these, there is an important church at Valence of the 11th century, which seems to be an almost expiring effort of the "cavern-like" style. In other respects it resembles the Northern styles so much as almost to remove it from the Provençal class. This is even more true of the cathedral at Vienne, which is nevertheless the largest and finest of the churches of Provence, but which approaches, both in style and locality, very closely to the Burgundian churches.

Its plan is extremely simple, having no transept and no aisle trending round the apse, as is the case with most of the Northern churches. It consists of three aisles, the central one 35 ft. wide between the piers, the others 14 ft. The buttresses are internal, as was usual in the South, forming chapels, and making up the whole width externally to 113 ft. by a length over all of 300, so that it covers somewhere about 30,000 sq. ft. This is only half the dimensions of some of the great Northern cathedrals, but the absence of transepts, and its generally judicious proportions, make this church look much larger than it really is.

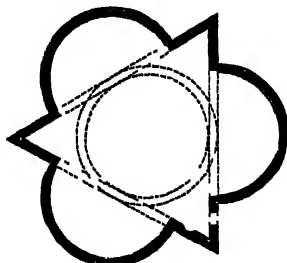
The west front and the three western bays are of the 16th century ; the next seven are of an early style of pointed architecture, with semi-Roman pilasters, which will be described in speaking of Burgundian architecture, and which belong probably to the 11th or beginning of the 12th century. The apse is ascribed to the year 952, but there are

no drawings on which sufficient dependence can be placed to determine the date.

Besides this, there is another church, St André le Bas at Vienne, belonging to the 11th century, whose tower is one of the most pleasing instances of this kind of composition in the province, and though evidently a lineal descendant of the Roman and Italian campaniles, displays an amount of design seldom met with beyond the Alps.

CIRCULAR CHURCHES.

The round shape seems never to have been a favourite for sacred buildings in Provence, and consequently was never worked into the apses of the churches nor became an important adjunct to them. One of the few examples found is a small baptistery attached to the cathedral at Aix, either very ancient or built with ancient materials, and now painfully modernised. At Riez there is a circular detached baptistery, usually, like the churches at Vaison, called a pagan temple, but evidently of Christian origin, though the pillars in the interior seem undoubtedly to have been borrowed from some more ancient and classical edifice. But the finest of its class is the church at Rieux, probably of the 11th century. Internally the vault is supported by 4 piers and 3 pillars, producing an irregularity far from pleasing, and without any apparent motive.



556. Plan of Church at Planes
(From Taylor and Nodet.)

At Planes is another church the plan of which deserves to be quoted, if not for its merit, at least for its singularity. It is a triangle with an apse attached to each side, and supporting a circular part terminating in a plain roof. As a constructive puzzle it is curious, but it is doubtful how far any legitimate use could be made of such a *caprice*.

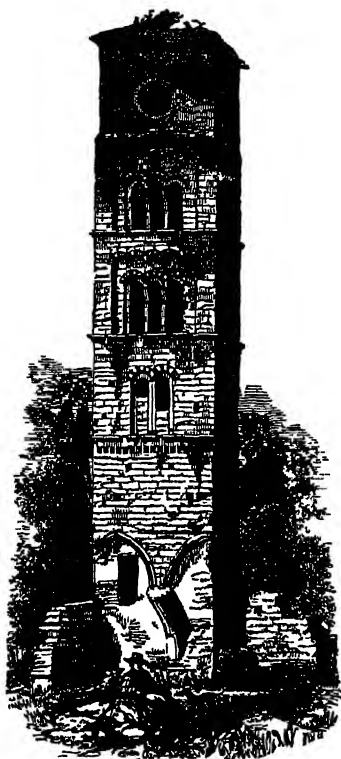
There is, so far as I know, only one triapsal church, that of St. Croix at Mont Majour near Arles. Built as a sepulchral chapel, it is a singularly gloomy but appropriate erection, but it is too tall and too bare to rank high as a building even for such a purpose.

TOWERS.

Provence is far from being rich in towers, which never seem there to have been favourite forms of architectural display. That of St. André le Bas at Vienne has already been alluded to, but this at Puissalicon (Woodcut No. 557) near Béziers is even more typical of

the style, and standing as it now does in solitary grandeur among the ruins of the church once attached to it, has a dignity seldom possessed by such monuments. In style it resembles the towers of Italy more than any found farther north, but it is not without peculiarities that point to a different mode of elaborating this peculiar feature from anything found elsewhere. As a design its principal defect seems to be a want of lightness in the upper storey.

The single circular opening there is a mistake in a building gradually growing lighter towards its summit.



557. Tower at Puissalicon. (From Renouvier)

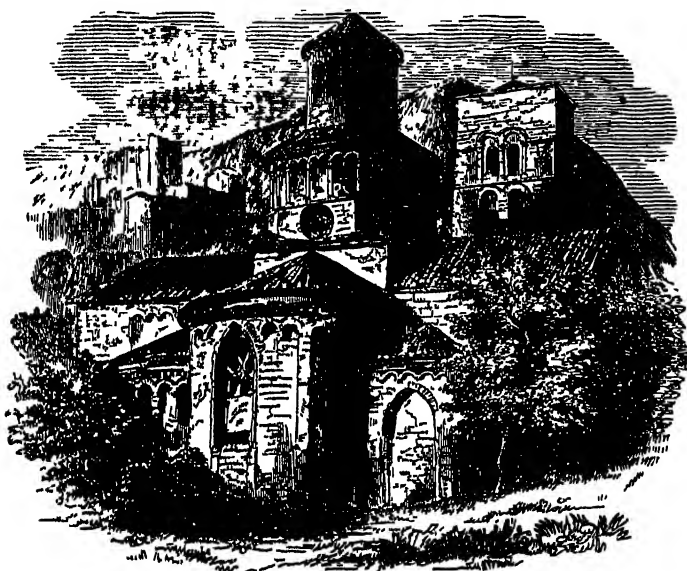
These towers were very seldom, if ever, attached symmetrically to the churches. When height was made an object, it was more frequently attained by carrying up the dome at the intersection of the choir with the nave. At Arles this is done by a heavy square tower, gradually diminishing, but still massive to the top, but in most instances the square becomes an octagon, and this again passes into a circle, which terminates the composition. One of the best specimens of this class of domes, if they may be so called, is the church of Cruas (Woodcut No. 558), where these parts are pleasingly subordinated, and form, with the apses on which they rest, a very beautiful composition. The defect is the tiled roofs or offsets at the junction of the various storeys, which give an appearance of weakness, as if the upper parts could slide, like the joints of a telescope, one into the other. This could easily be avoided, and probably was so in the original design. If this were done, we have here the principle of a more pleasing crowning member at an intersection than was afterwards used in pointed architecture, and capable of being applied to domes of any extent.

CLOISTERS.

Nearly all, and certainly all the more important churches of which we have been speaking, were collegiate, and in such establishments the cloister forms as important a part as the church itself, and frequently the more beautiful object of the two. In our own cold wet

climate the cloisters lose much of their appropriateness ; still, they always were used, and always with a pleasing effect ; but in the warm sunny South their charm is increased tenfold. The artists seem to have felt this, and to have devoted a large share of their attention to these objects—creating, in fact, a new style of architecture for this special purpose

With us the arcades of a cloister are generally, if not always, a range of unglazed windows, presenting the same features as those of the church, which, though beautiful when filled with glass, are somewhat out of place without that indispensable adjunct In the South



558.

Church at Cruas. (From Taylor and Nodder)

the cloister is never a window, or anything in the least approaching to it in design, but a range of small and elegant pillars, sometimes single, sometimes coupled, generally alternately so, and supporting arches of light and elegant design, all the features being of a character suited to the place where they are used, and to that only.

The cloister at Arles has long occupied the attention of travellers and artists, and perhaps no building, or part of one, in this style has been so often drawn or so much admired. Two sides of it are of the same age and in the same style as the porch (Woodcut No. 548), and equally beautiful. The other two are somewhat later, the columns supporting pointed instead of round arches. At Aix there is another similar to that at Arles, and fragments of such colonnades are found in many places. That of Fontfroide (Woodcut No. 559) is one of the most complete and perfect, and some of its capitals are treated with a



559.

Cloister at Fontfide (From Taylor and Nodier.)



560

Capitals in Cloister, Elne. (From Taylor and Nodier.)



561.

freedom and boldness, and at the same time with an elegance, not often rivalled anywhere. They even excel—for the purpose at least—the German capitals of the same age. Those at Elne are more curious than those of any other cloister in France, so far as I know—some of them showing so distinct an imitation of Egyptian work as instantly to strike any one at all familiar with that style. Yet they are treated with a lightness and freedom so wholly mediæval as to show that it is possible to copy the spirit without a servile adherence to the form. Here, as in all the examples, every capital is different—the artists revelling in freedom from restraint, and sparing neither time nor pains. We find in these examples a delicacy of handling and refinement of feeling far more characteristic of the South than of the ruder North, and must admit that their architects have in these cloisters produced objects with which nothing of the kind we have in England can compete

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CHAPTER II.

AQUITANIA

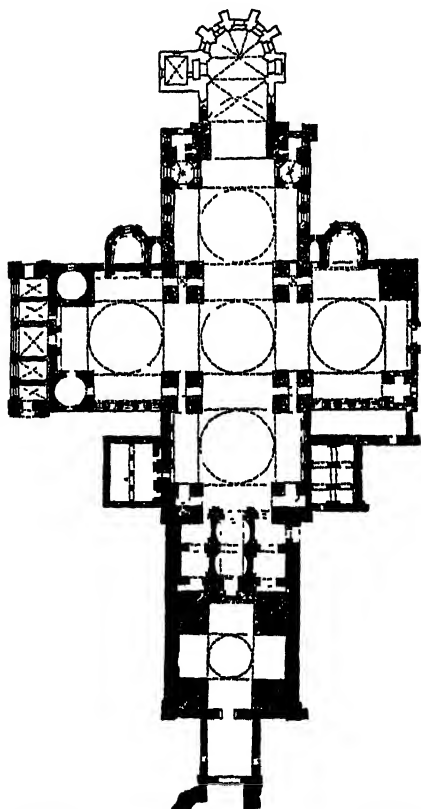
CONTENTS.

Churches at Périgueux, Souillac, Angoulême, Alby, Toulouse, Conques,
Tours —Tombs

THE moment you pass the hills forming the watershed between the

rivers flowing to the Mediterranean and those which debouch into the Bay of Biscay, you become aware of having left the style we have just been describing to enter upon a new architectural province. This province possesses two distinct and separate styles, very unlike one another both in character and detail. The first of these is a round arched tunnel-vaulted Gothic style, more remarkable for the grandeur of its conceptions than for the success with which those conceptions are carried out, or for beauty of detail. The second is a pointed-arched, dome-roofed style peculiar to the province.

The existence of this peculiar form of art in this part of France, where it is alone found, is quite sufficient to establish the pre-existence in this province of a race differing from that inhabiting the rest of the country, though it is not at present easy to determine



562. Plan of St. Front, Périgueux (From F de Vernelli, 'Architecture Byzantine en France.')
Scale 100 ft. to 1 in.

their origin. From the prevalence of Basque terminations to the names of the principal towns in the district, and from the fragments

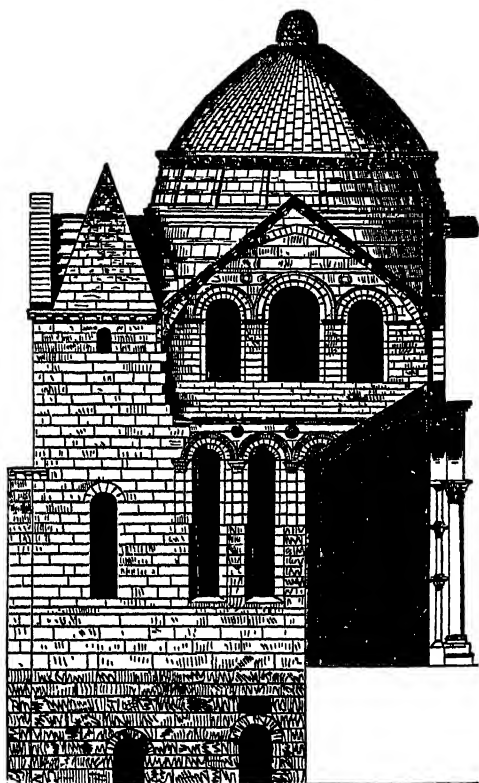
of that people still existing on its southern frontier, it would appear most likely that they were the influencing race. If so, their love of domes would be almost sufficient to establish their claim to a Turanian origin, for though domes are found, no doubt, farther north, it is in a modified form. These phenomena are, however, sufficient to induce us to include for the present in the province of Aquitaine the doubtful districts of the Angoumois and Vendée, though it is possible that these provinces may eventually turn out to belong more properly to Anjou.

In describing them, it may be convenient to take the domical style first, as its history—with one or two exceptional examples in the neighbouring provinces—begins and ends here. It will, no doubt, be found beyond the Pyrenees so soon as it is looked for; but in a country whose architecture has been so imperfectly investigated as has been the case in Spain, fifty different styles might exist without our being cognizant of the fact.

The principal and best preserved example of the domical style of Aquitaine is the church of St. Front, Périgueux. As will be seen from the woodcut No. 562, its plan

is that of a Greek cross, 182 ft. each way internally, exclusive of the apse, which is comparatively modern, and of the ante-church and porch, shaded darker, extending 150 ft. farther west, which are the remains of an older church, now very much mutilated, and to which the domical church was added in the 12th century.

Both in plan and dimensions, it will be observed that this church bears an extraordinary and striking resemblance to that of St. Mark's, Venice, illustrated in Book II. The latter church, however, has the angles so filled up as to reduce it to the more usual Greek form of a square, while its front and lateral porches are additions of a



563. Part of St. Front, Périgueux. (From Verneilh)

magnificence to which the church of St. Front can lay no claim. The five cupolas are of nearly the same size, and are similarly placed, in both churches, and the general similarity of arrangement points certainly to an identity of origin. Both too would seem to be of about the same age, and there is now some reason to doubt the data on which M. Félix de Verneilh¹ arrived at the conclusion that the church we now see was erected in the very beginning of the 11th century. There is, however, one striking difference—that all the constructive arches in St. Front are pointed, while those of St. Mark's are round. The form too of the cupolas differs, and in St. Front the piers that support the domes, having been found too weak, have been cased to strengthen them, which gives them an awkward appearance, from which St. Mark's is free. The difference that would strike a traveller most is, that St. Mark's retains its frescoes and decorations, while St. Front, like almost all the churches of its age, presents nothing now but naked bare walls, though there cannot be a doubt that it was originally painted. This indeed was the legitimate and appropriate mode of decoration of all the churches of this age, till it was in a great measure superseded by the invention of painted glass.

The cupolas are at the present day covered with a wooden roof; but their original appearance is represented with tolerable correctness in the woodcut No 563, which, though not so graceful as Eastern domes usually are, are still a far more picturesque and permanent finishing for a roof than the wooden structures of the more Northern races. Its present internal appearance, from the causes above mentioned, is singularly bare and gloomy, and no doubt utterly unworthy of its pristine splendour.

The tower stands at the intersection between the old and new

¹ M. Verneilh, in his work "*Architecture byzantine en France*," 4to, Paris, 1851, based his arguments chiefly on the supposition that it was copied from St. Mark's, Venice. The discoveries to which we have already referred (p 530, vol I.) prove that the latter was not built till 1063-71, so that it follows that a much later date must be given to St. Front, unless the latter be, like St. Mark's, a copy of the church of the Apostles at Constantinople. Against this supposition there remains the fact that the churches of St. Mark, Venice, and St. Front, Périgueux, are identical in their dimensions if we replace Italian feet by French feet. There is also a record quoted by Mr. Gailhabaud that the original church of St. Front was destroyed by fire in

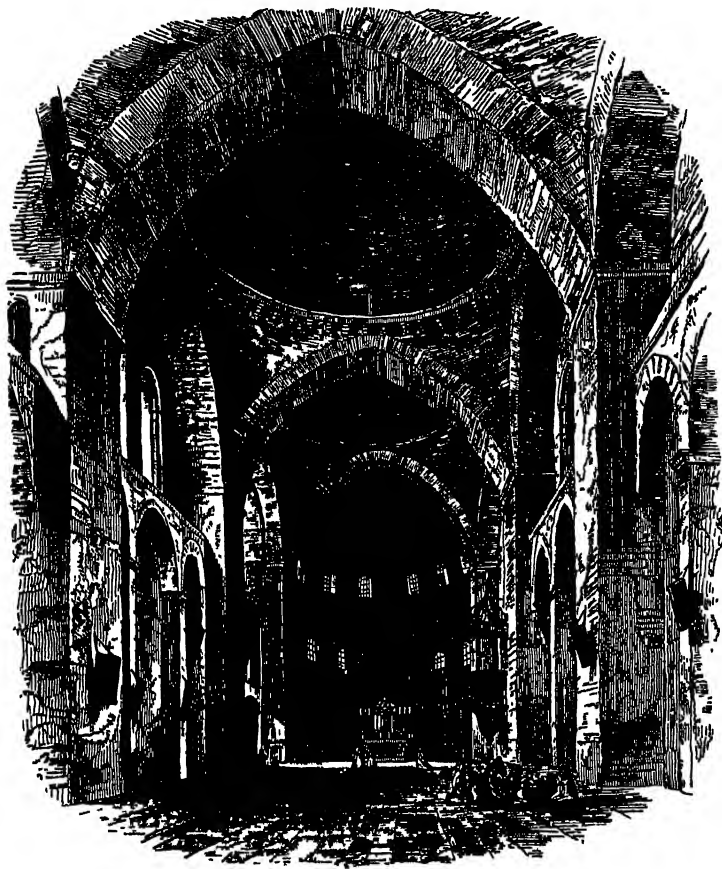
1120; but the existing church is entirely built in incombustible material, and therefore it would seem to be more probable that a much later date, viz 1120-1140, must be given to it. It should however be taken into account that St. Front is generally accepted as the prototype of all the domed churches in France, so that if any of its successors could be proved to have an earlier date our argument would fall to the ground. So far as the architectural details of the church are concerned they have more the character of the 12th than of the 11th century, and the introduction of the pointed arch at so early a date seems improbable, except so far as the pointed barrel vault is concerned. See page 46. Consult the Appendix, note 4.



INTERIOR OF ST. FRONT, PÉRIGUEUX

churches, and its lower part at least is so classical in its details, that it more probably belongs to the older Latin church than to the domical one. Its upper part seems to have been added, and its foundation strengthened, at the time the eastern part was built.

St. Front is perhaps the only existing specimen of a perfect Greek cross church with cupolas. That of Souillac is a good example of a

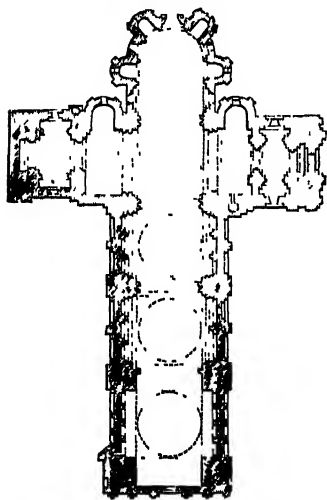


564.

Interior of Church at Souillac (From Taylor and Nodder.)

modification of a form nearly similar, except that the cupola forming the eastern branch is here transferred to the western, making it thus a Latin instead of a Greek cross, which is certainly an improvement, as the principal space and magnificence is thus concentrated about the high altar, which is, or should be, the culminating point of effect. An opinion may be formed of its internal appearance, and indeed of all the churches of this style, from the view (Woodcut No. 564), which in reality gives it much more the appearance of the interior of a mosque

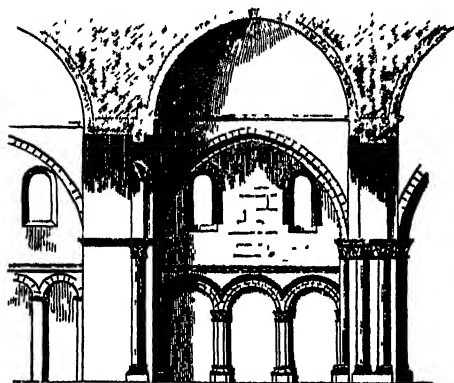
in Cairo than of a Christian church of the Middle Ages. The building is not large, being only 205 ft. in length internally, including the porch, and 110 across the transepts. Its age is not accurately known, but it is usually placed by antiquaries in the 12th century on account of its pointed arches.



565. Plan of Cathedral at Angoulême.
(From Vernelli.) Scale 100 ft. to 1 in.

The cathedral at Angoulême (Woodcut No. 565) is another and still more extended example of this class, having three domes in the nave, the façade belonging probably to the 11th, the rest to the 12th century. The form of these domes, with the arrangement of the side walls, will be understood from the woodcut No 566. The method adopted in this church may be considered as typical of all this class, and, except in the mode of lighting the upper part, is by no means inferior in architectural effect to the intersecting vaults of after ages. The transepts here are shortened internally so as only to give room for

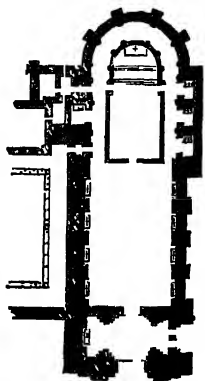
two small lateral chapels, but externally they are made very imposing by the addition of two towers, one at the end of each. This was another means of solving a difficulty that everywhere met the mediæval architects, of giving the greatest dignity to the most holy place.



566. One Bay of Nave, Angoulême. (From Vernelli.) No scale.

The proper and obvious mode of doing this was of course to raise a tower or dome at the intersection of the nave and transepts, but the difficulties of construction involved in this mode of procedure were such that they seldom were enabled to carry it out. This can only be said, indeed, to have been fairly accomplished in England. At Angoulême, as will be observed in the plan, there is no passage round the altar, nor is the choir separated from the body of the church. In Italy, and indeed in Germany, this does not seem to have been considered of importance; but in France, as we shall presently see, it

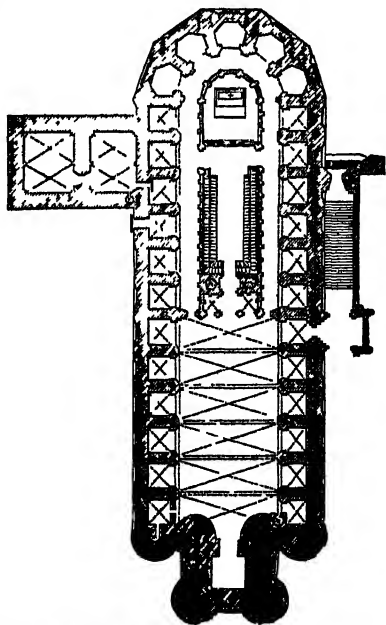
was regarded as the most indispensable part of the arrangement of the church, and to meet this exigency the Southern architects were afterwards obliged to invent a method of isolating the choir, by carrying a lofty stone railing or screen round it, wholly independent of any of the constructive parts of the church. This, there is little doubt, was a mistake, and in every respect a less beautiful arrangement than that adopted in the North, still, it seems to have been the only means of meeting the difficulty in the absence of aisles, and in some instances the richness with which the screen was ornamented, and the unbroken succession of bassi-relievi and sculptural ornaments, make us forget that it is only a piece of church furniture, and not an integral part of the design of the building.



567 Plan of Church at Moissac (From Taylor and Nodder.) Scale 100 ft. to 1 in.

One of the earliest examples of this arrangement which has been preserved is in the church at Moissac, remarkable for its strange mythical sculpture and rude pointed architecture, both belonging to the 11th century, and as unlike anything to be found in any other part of France as can well be conceived.

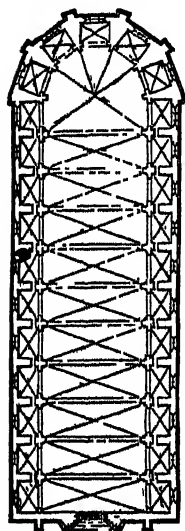
At a later age we find in the cathedral at Alby the same system carried to its acmé, and still adhered to in all essential parts in spite of the influence and predominance of the pure Gothic styles, which had then so generally superseded it. The foundation of the church was laid only in the year 1282, and it was not so far completed as to admit of its dedication till 1476. Its choir and fresco decorations were added by the celebrated Louis d'Amboise, who completed the whole in 1512. As will be seen from the plan (Woodcut No 568), the church is one immense unbroken vaulted hall, 55 ft. in width by 262 in length; or adding the chapels, the internal width is 82 ft., and the total length upwards of 300 ft.



568 Plan of Cathedral at Alby. (From Chapuy, 'Cathédrales Françaises.') Scale 100 ft. to 1 in.

As will be observed, the whole of the buttresses are internal, as is

very generally the case in the South ; and where painted glass is not used, and fresco painting is the principal mode of decoration, such a system has many advantages. The outer walls are scarcely ever seen, and by this arrangement great internal extent and appearance of gigantic strength is imparted, while the whole space covered by the building is available for internal use. But where painted glass is the principal mode of decoration, as was the case to the north of the Loire, such a system was evidently inadmissible. Then the walls were internally kept as flat as possible, so as to allow the windows to be seen in every direction, and all the mechanical expedients were placed on the outside. Admirably as the Northern architects managed all this, I cannot help thinking, if we leave the painted glass out of the question, that the Southern architects had hit on the more artistic



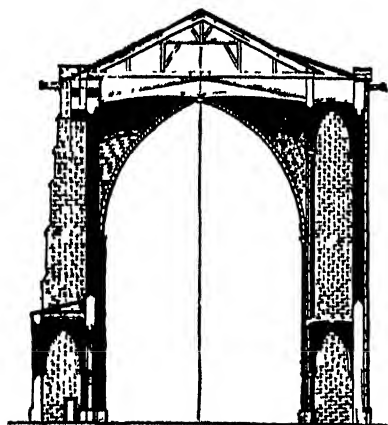
569. Plan of Church of the Cordeliers, at Toulouse. Scale 100 ft. to 1 in.

arrangement of the two ; and where, as at Alby, the lower parts of the recesses between the internal buttresses were occupied by deep windowless chapels, and the upper lights were almost wholly concealed, the result was an extraordinary appearance of repose and mysterious gloom. This character, added to its simplicity and the vastness of its vaults, render Alby one of the most impressive churches in France, and a most instructive study to the philosophical inquirer into the principles of effect, as being a Gothic church built on principles not only dissimilar from, but almost diametrically opposed to, those which we have been usually accustomed to consider as indispensable, and as inherent requisites of the style.

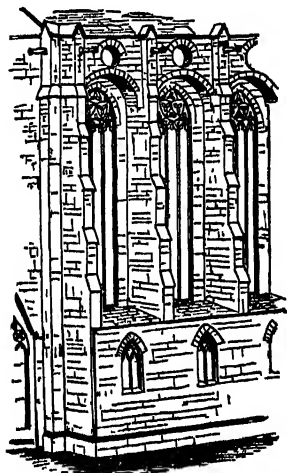
The church of the Cordeliers at Toulouse is another remarkable example of this class, and exhibiting its peculiarities in even a clearer light than that at Alby. Externally its dimensions in plan are 273 ft. by 87. Those of King's College Chapel at Cambridge, which is the building we possess most resembling it in plan, are 310 ft. by 84. But the nave of that chapel is only 41 ft. 6 in. clear between the piers, while in the church of the Cordeliers it is 53 ft., and except the thickness of the outer wall - about 4 ft. - the whole of the floor-space of the plan is utilised in the interior. In so far as internal effect is concerned this is no doubt judicious ; but, as may be seen from the view (Woodcut No. 571), the absence of any delineation of the line of buttresses externally produces a flatness and want of accentuation in the lower part that is highly objectionable. As will be observed from the section, the whole of the width of the buttresses is included in the interior on the one side. On the other it is excluded above the roof of the aisle, but a gallery (Woodcuts Nos. 570 and 571) joins the buttress at the top, giving the

effect of a cornice and a gallery above. The church is of brick, and all the peculiarities of the style are here found exaggerated, but there are few churches on the Continent which contain so many valuable suggestions for a Protestant place of worship, and no features that could not easily be improved by judicious handling. It was built in a country where Protestant feeling existed before the Reformation, and where consequently architects studied more how they could accommodate congregations than provide show-places for priests.

Besides those which are built wholly according to this plan, there are a great number of churches in this province which show the influence of its design in more respects than one, though, having been rebuilt in a subsequent age, many of the original features are necessarily lost. The cathedral at Bordeaux is a remarkable example of this,



570. Section of Church of the Cordeliers at Toulouse.
50 ft. to 1 in. (From King's 'Study Book'.)



571. View of Angle of Church of the Cordeliers at Toulouse (From King.

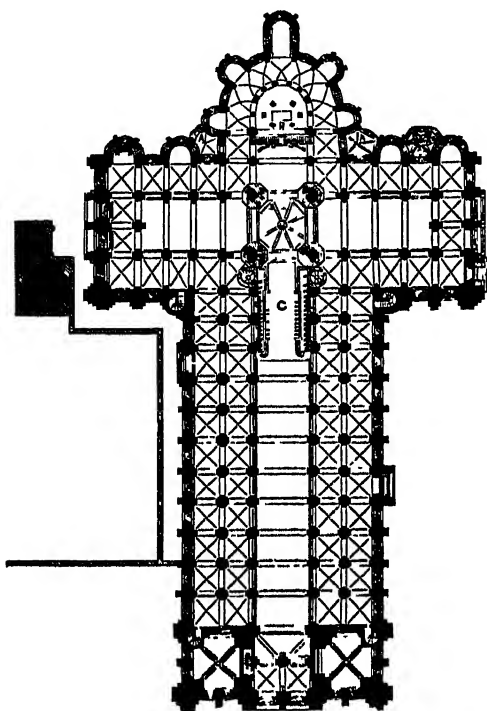
its western portion being a vast nave without aisles, 60 ft. wide internally, and nearly 200 ft. in length. Its foundations show that, like that at Angoulême, it was originally roofed by three great domes; but being rebuilt in the 13th century, it is now covered by an intersecting vault of that age, with two storeys of windows, and an immense array of flying buttresses to support its thrust, all which might have been dispensed with had the architects retained the original, simpler, and more beautiful form of roof. The cathedral of Toulouse shows the same peculiarity of a wide aisleless nave, leading to a choir of the usual construction adopted in this country in the 13th and 14th centuries; and many other examples might be quoted where the influence of the earlier style peers through the Northern Gothic which succeeded and nearly obliterated it.

CHEVET CHURCHES.

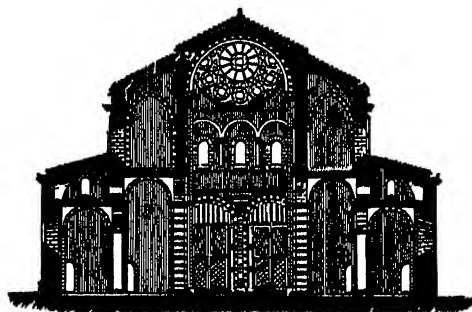
The Gothic churches of this province are neither so numerous nor so remarkable as those of the domical class we have just been describing ; still, there are several examples, far too important to be passed

over, and which will serve besides in enabling us to introduce the new form of church building which became prevalent in France to the exclusion of all others, and which characterised the French style in contradistinction to that of other countries.

The typical example of the style in this province is the great church of St. Saturnin, or St. Sernin, at Toulouse, dedicated in the year 1096. The church is 375 ft. in length and 217 in width across the transept externally. It is five-aisled, the nave being 95 ft. in the interior, though the central aisle is only 25 ft. wide and is further contracted at the intersection by masses of masonry subsequently added to support the central tower. It has five apsidal and four transeptal chapels, and may therefore be considered as possessing a complete chevet ; but the church at Conques (Woodcut No. 574), in the same style and of almost similar date, illustrates even more perfectly the arrangement of which we are now speaking.



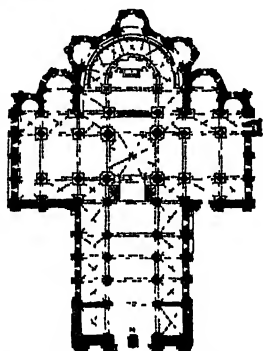
572. Church of St. Sernin, Toulouse. (From the 'Archives des Monuments Historiques') Scale 100 ft. to 1 in.



573. Section of the Church of St. Sernin, Toulouse. Scale 50 ft. to 1 in.

The nave of St. Sernin, as will be observed (Woodcut No. 573), has

double side-aisles, above the inner one of which runs a grand gallery. The roof of this gallery—in section the quadrant of a circle—forms an abutment to the roof of the nave, which is a bold tunnel-vault ornamented by transverse ribs only. So far the constructive arrangements are the same as in the transitional church of Fontfroide. Passing from the nave to the choir, both at Toulouse and at Conques, we come upon a more extended and complicated arrangement than we have hitherto met with. It will be recollected that the early Romanesque apse was a simple large niche, or semi-dome, so we found out in the Lombard style, and shall find it in the German style when it comes to be described, and generally even in the neighbouring Provençal style, and always—when unaltered—in the domical style last described. In the present instance it will be seen that a semicircular range of columns is substituted for the wall of the apse, an aisle bent round them, and beyond the aisle there are always three, five, or even seven chapels opening into it, which give it a complexity very different from the simple apse of the Roman basilicas and the other styles we have been describing, and at the same time a perspective and a play of light and shade which are unrivalled in any similar invention of the Middle Ages. The *apse*, properly speaking, is a solid semi-cylinder, surmounted by a semi-dome, but always solid below, though generally broken by windows above. The *chevet*, on the contrary, is an apse, always enclosed by an open screen of columns on the ground-floor, and opening into an aisle, which again always opens into three or more apsidal chapels. This arrangement is so peculiarly French, that it may properly be characterised by the above French word, a name once commonly applied to it, though latterly it has given way to the more classical, but certainly less suitable, term of apse. Its origin too is worth inquiring into, and seems to be capable of easy explanation.¹

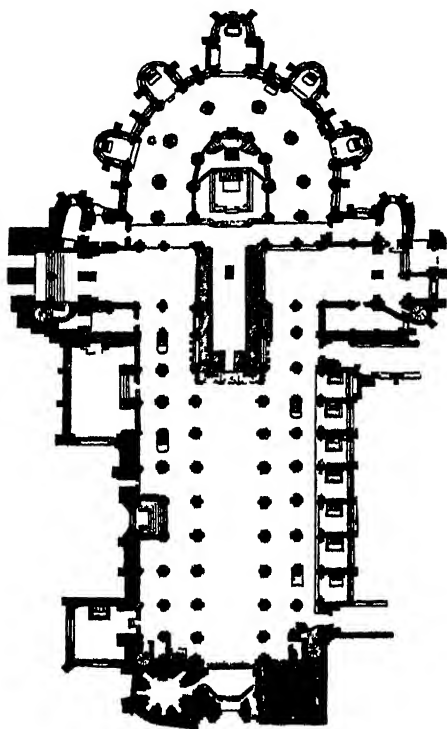


571. Plan of Church at Conques.
(From Taylor and Nodder.) Scale
100 ft to 1 in.

The uses which the various nations of Christendom made of the circular form of building left them by the Romans have been more than once adverted to in this work. The Italians used it almost always standing alone as a tomb-house or as a baptistery; the Germans converted it into a western apse, while sometimes, as at Bonn and elsewhere, they timidly added a porch or nave to it, but the far more frequent practice with the Germans, and also in England, was to build first the circular church for its own sake, as in Italy: then the clergy added a choir, that they might pray apart from the people.

¹ Consult the Appendix, note 5

The French took a different course from all these. They built circular churches like other nations, apparently in early times at least, which were intended to stand alone, but in no instance do they appear to have applied them as naves, nor to have added choirs to them. On the contrary, the clergy always retained the circular building as the sacred depository of the tomb or relic, the Holy of Holies, and added a straight-lined nave for the people. Of this class was evidently the church which Perpetuus built in the fifth century over the grave at St. Martin at Tours. There the shrine was surrounded by seventy-nine



575. Plan of St. Martin at Tours. Scale 100 ft. to 1 in

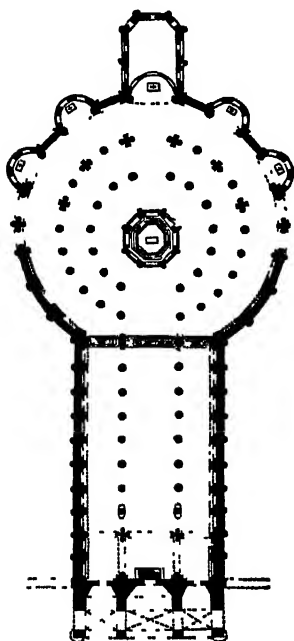
pillars arranged in a circular form · the nave was lined by forty-one—twenty on each side, with one in the centre of the west end as in Germany. When the church required rebuilding in the 11th century (1014 ?), the architect was evidently hampered by finding himself obliged to follow the outline of the old basilica of Perpetuus, and having to labour on the same foundation so as not to disturb either the shrine of the saint or any other place which had become sacred in this, which was the most celebrated and revered of the churches of Gaul. All this is made clear in the plan of the new church (Woodcut No. 575). The arrangement of the circular part and the

nave exactly accord with the

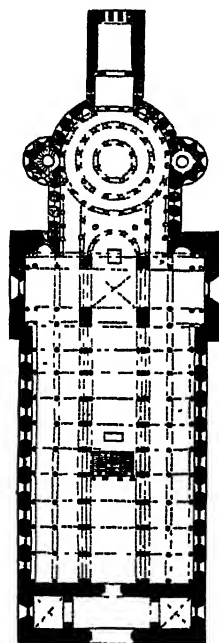
description of the old church, only that the latter has been considerably enlarged according to the fashion of the day. But the juxtaposition of the two shows how nearly the chevet arrangement was completed at that time.

Another church, that of Charroux, on the Loire, looks as though it had been built in direct imitation of the church of Perpetuus. The round church here retains its pre-eminence over the nave, as was the case in the older examples, and thus forms an intermediate link between the old church of St. Martin, which we know only by description, and the more modern one, of which a plan is given (Woodcut No. 575).

St Bénigne, Dijon, is another transitional example which may serve to render this arrangement still more clear. It was erected in the first year of the 11th century, and was pulled down only at the Revolution; but before that catastrophe it had been carefully measured and described in Dom Plancher's '*History of Burgundy.*' As seen by him, the foundations only of the nave were of the original structure, for in the year 1271 one of its towers fell, and so damaged it that the whole of that part of the church was then rebuilt in the perfect pointed style of the day. Without entering too much into detail, it will suffice to state that the part shaded lightly in the



576. Church of Charroux
Scale 100 ft. to 1 in



577. Plan of St. Benigne, Dijon.
(From Dom Plancher's '*Histoire de
Burgogne.*') Scale 100 ft. to 1 in.

woodcut (No. 577) is taken literally from Dom Plancher's plan, regarding which there can be no doubt, and the contemporary descriptions are so full that very little uncertainty can exist regarding the dimensions and general disposition of the nave.

The bodies of the confessors SS. Urban and Gregory were, it appears, originally buried in the church of St John the Baptist, which seems to have been the name most properly applied to this circular building; they were afterwards transferred to the crypt below the high altar, in the rectangular part of the church. Above the lower storey, which retained its name as a baptistery and burial-place, was the upper church, which was dedicated to the Virgin Mary; above

that was the church of the Holy Trinity ; and on the top of the round towers, on one side the altar of St. Michael, on the other probably that of Gabriel

The little church of Neuvy St Sepulchre, near Bourges, which was erected between the years 1042 and 1046, presents precisely the same arrangements as the church of Charroux, though on a smaller scale, there being only one range of ten pillars in the centre. The ancient nave having been destroyed, was replaced by a more extended one in the 12th century, but the old arrangement can easily be traced.

In all these old churches—and they seem to have been very common in France before the 12th century—the circular part was the most important, but they have most of them been rebuilt ; and where this has been the case, even when the outline of the circular form was retained, the lines of the nave were made tangents of the circle, and thus became parts of one design. All these arrangements were perfect before the church of Conques (Woodcut No. 574) was erected. There the architect, not being hampered by any previous building, was allowed free scope for his design. The plan so produced was never lost sight of by the French, but was developed into a vast variety of beautiful forms, which we shall shortly have to examine.

When once this transformation of the round church into the chevet termination of a basilica was effected, the French adhered to it with singular constancy. I am not aware of their ever having built a circular church afterwards which was intended to stand alone ; and there are very few instances of basilicas of any importance without this form of apse. Some, it is true, have been rebuilt on old foundations, with square eastern ends, but this is rare and exceptional, the chevet being the true and typical termination

The church at Conques and that of Toulouse both show it fully and beautifully developed, though externally the chapels hardly fit pleasingly into the general design, and look more as though their addition were an afterthought. This, however, was soon afterwards remedied, and the transformation made complete.

The solidity with which these churches were built, and the general narrowness of their proportions as compared with the domical churches of the same time and district, enabled the architects occasionally to attempt some splendid erection on the intersection of the nave and transepts, which is the spot where height should always be aimed at. The dome at Cruas, in the Provençal district, has already been described (Woodcut No. 558). The church at Conques has one as important, though dissimilar ; but the finest is that of St. Sernin at Toulouse (Woodcut No. 578), which rivals the design of our spires at Salisbury, Norwich, and elsewhere, but its height being only 230 ft. from the ground, it cannot be compared with them in that respect. The 3 lower storeys only are of the age of the church, the 2 upper

were added long afterwards, but were adapted with remarkably good taste. Though differing in design and detail, their general form and outline is such as to accord most happily with the older structure on which they are placed, there is nevertheless a sameness of design in

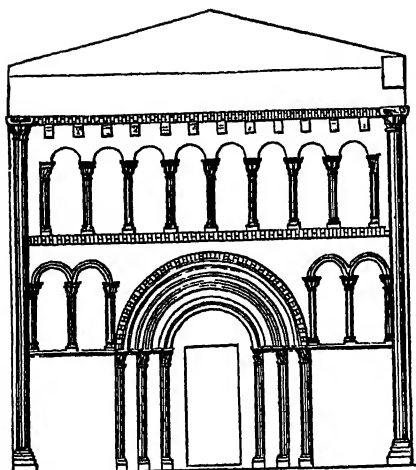


578.

St. Sernin, Toulouse (From Taylor and Nodder.)

placing so many similar storeys one over the other, merely diminishing in size, which is not altogether pleasing. The general effect, however, is good, and for a central object it is, if not the finest, certainly one of the very best which France possesses.

As in all French styles, the western façades of the Southern churches are the parts on which the architects lavished their ornaments



579.

Church at Aillas.

with the most unsparing hand. Generally they are flat, and most of them now terminate squarely, with a flat line of cornice of slight projection. Beneath this there is generally a range of arches filled with sculpture or intended to be so—the central one, and that only, being used as a window. Beneath this is the great portal, on which more ornament is bestowed than on any other feature of the building. Some of these gateways in this province, as

in Provence, are wondrous examples of patient labour, as well as models of beauty. They possess more than the richness of our own contemporary Norman portals, with a degree of refinement and delicacy which our forefathers did not attain till a much later age. Some of these church-portals in Aquitaine are comparatively simple, but even they make up for the want of sculpture by the propriety of their design and the elegance of their composition

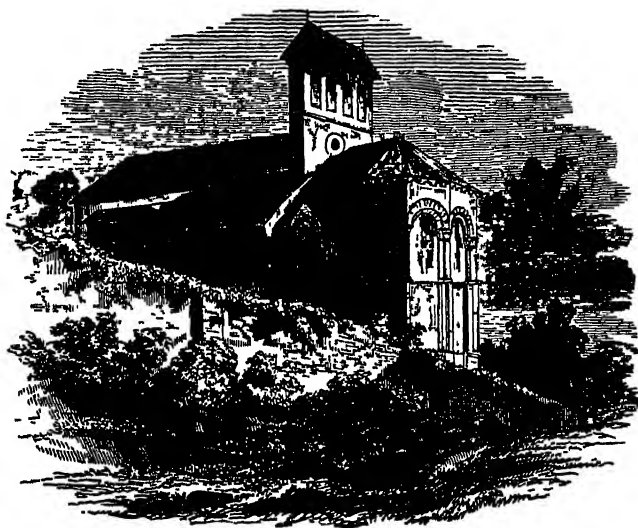
The church at Aillas presents a fair specimen, on a



580.

Church at Louplac (From Leo Drouyn,
'Architecture au Moyen-Âge')

small scale, of the class of design which is peculiar to the façades of Aquitania, though it is doubtful if the original termination of the gable has not been lost and replaced by the one shown in the drawing. The façade of Angoulême is designed on the same plan, though it is much richer. Those of Civray, Parthenay, and of many others, show the same characteristics. They appear to have been designed, not to express the form and construction of the interior, but, like an Egyptian propylon, as a vehicle for a most extensive series of sculptures exhibiting the whole Bible history. Sometimes, however, the design is more strictly architectural, as in the façade of the church at Loupiac, where sculpture is made wholly subordinate, and the architectural members are so grouped as to form a pleasing and effective design, not unlike some instances found farther north and in our own country.



581.

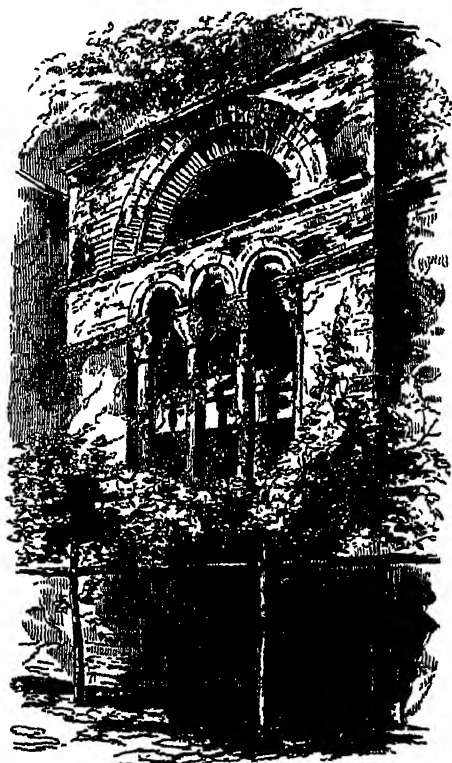
St. Eloi, Espalion. (From Taylor and Nodiei.)

The varieties of these, however, are so endless that it would be in vain to attempt either to particularise or to describe them. Many of these arrangements are unusual, though almost always pleasing, as in the church at Espalion (Woodcut No. 581), where the belfry is erected as a single wall over the chancel-arch, and groups well with the apsidal termination, though, as in almost every instance in this country, the western façade is wanting in sufficient feature and character to balance it.

Generally speaking, the cloisters and other ecclesiastical adjuncts are so similar to those of Provence, as given in the last chapter, that a separate description of them is not needed here. They are all of the columnar style, supporting small arches on elegant capitals of the most varied and elaborate designs, evincing that delicate feeling so prevalent

in the south, which prevented any approach to that barbarism so common farther north whenever the architects attempted anything beyond the common range of decoration.

The same feeling pervades the tombs, monuments, and domestic architecture of this part of France, making them all far more worthy



582 Tomb at St. Pierre, Toulouse. (From Taylor and Noller)

of study in every minute detail than has yet been attempted. The woodcut (No. 582) represents one small example of a tomb built into a wall behind the church of St. Pierre at Toulouse. It is one of those graceful little bits of architecture which meet one at every turn in the pleasant South, where the people have an innate feeling for art which displays itself in the smallest as well as in the most important works.

CHAPTER III.

ANJOU.

CONTENTS

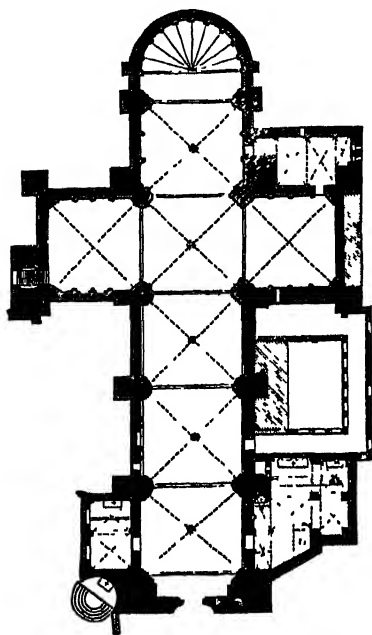
Cathedral at Angers—Church at Fontevrault—Poitiers—Angiovine spires

THE architectural province of Anjou cannot perhaps be so distinctly defined as the two already described. On the north, indeed, it is separated by the clearest line both from Normandy and from the Frankish province. But in the south, as before remarked, it is not easy to say, in the present state of our information, what works belong to Aquitaine and what to Anjou. Not that there is any want of sufficient marks to distinguish between the *styles* themselves, but a large portion of *examples* appear to belong to a sort of debateable ground between the two. This, however, is true only of the buildings on the borders of the province. The two capitals of Angers and Poitiers are full of examples peculiar to them alone, and as a rule the same remark applies to all the principal churches of the province.

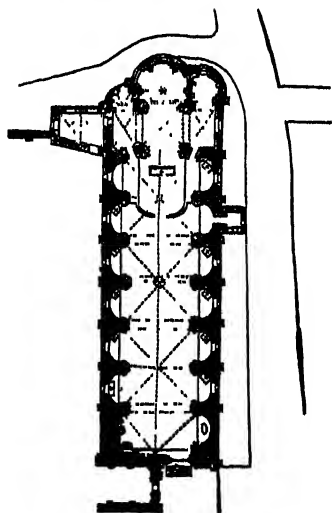
The age of the greatest splendour of this province is from the accession of Foulques Nerra in the year 989 to the death of Henry II. of England, 1190. During these two centuries its prosperity and independent power rose to a height which it subsequently neither maintained nor ever regained. Prior to this period the buildings found scattered here and there are few and insignificant, but during its continuance every town was enriched by some noble effort of the piety and architectural taste peculiar to the age. After its conclusion the completion of works previously commenced was all that was attempted. The rising power of the northern provinces, and of the English, seems to have given a check to the prosperity of Anjou, which it never thoroughly recovered; for when it did to a certain extent again become prosperous and wealthy, it was under the influence and dominion of the great central Frankish power which ultimately absorbed into itself all the separate nationalities of France, and obliterated those provincial distinctions which are so strikingly prominent in the earlier part of her history.

The plan of St. Maurice (Woodcut No. 583), the cathedral of Angers, may be considered as a typical example of the Angiovine style,

and will serve to explain in what it differs from the northern and in what it resembles the southern styles. On comparing it with the plan



583. Cathedral at Angers (From Faultrier, *Anjou et ses Monuments*.) Scale 100 ft. to 1 in.



584. St. Trinité, Angers. (From Faultrier.) Scale 100 ft. to 1 in.

of Souillac, and more especially with that of the cathedral at Angoulême, it will be seen how nearly it resembles them—the great difference being that, instead of cupolas over each square compartment, it has the intersecting vault of the northern styles. Its buttresses too are external, but less in projection than might be generally considered necessary to support a vault 52 ft. in span. They moreover show a tendency towards a northern style of construction; but the absence of free-standing pillars or of aisles, and the general arrangement of the whole building, are rather southern peculiarities. Externally the façade has been successively piled up at various times from the 12th century, when the body of the church was commenced and nearly finished, to the 16th, when it was completed in the style of the Renaissance.

Another church in the same city, of equal interest, though not so large or important, is that of the Trinité. It consists of one nave without transepts, 52 ft. wide measuring into the recesses, though it is only 32 ft. wide between the piers. It is roofed with an intersecting vault in eight compartments, of somewhat northern pattern, but with a strong tendency towards the domical forms of the Southern style. It possesses, moreover, a peculiarity rather frequently attempted, viz., that of trying to attain a greater appearance of

length by lowering the vaults from the entrance towards the altar. Thus, at the entrance the building is 80 ft. in height, but it gradually

sinks to 65 at the eastern end. This contrivance is a mere trick, and, like all such in architecture, is a failure.

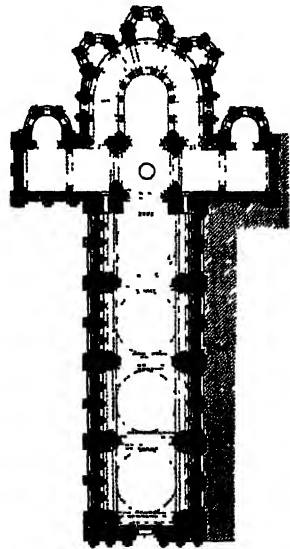
The details of this church are rich and good throughout, and altogether the effect of the 7 recesses on each side is pleasing and satisfactory. Indeed it may be considered as the typical and best example of that class of churches, of which a later specimen was the cathedral at Alby, described in the last chapter, and which are so beautiful as to go far to shake our absolute faith in the dogma that aisles are indispensably necessary to the proper effect of a Gothic church.

Even more interesting than either of these, in an archæological point of view, is the little castle chapel at Loches, commenced by Geoffrey Grise Gonelle, Count of Anjou, in the year 962, and continued by his son, Foulques Nerra, to whom the nave must be ascribed; while the western tower is probably the only part now remaining of the older church. The eastern portion was rebuilt in the 12th century by Thomas Pactius, the prior, and completed in 1180—the latter part being in the well-known Norman style of that age. An interesting point in this church is that the Norman round-arch style is built over and upon the pointed arches of the nave, which are at least a century older, having been erected between the years 987 and 1040. It will be seen from the view given of this chapel that the pointed style here used has nothing in common with the pointed architecture of the North of France, but is that of the South, such as we have seen in the churches of Périgueux and Souillac. It is used here, as there, to support domes. These, however, in this instance, instead of being circular, are octagonal, and rise externally in octagonal straight-lined cones of stone-work, giving a very peculiar but



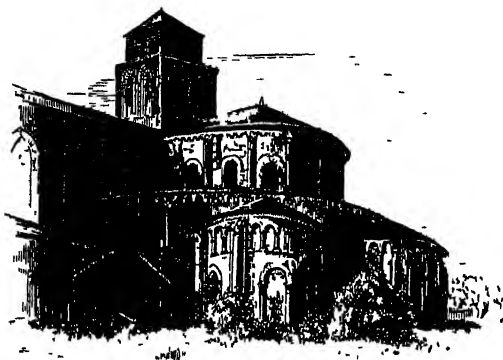
585.

View of the Interior of Loches.
(From a Sketch by the Author.)



586 Plan of Church at Fontevrault.
(From Vernesilh.) Scale 100 ft. to 1 in.

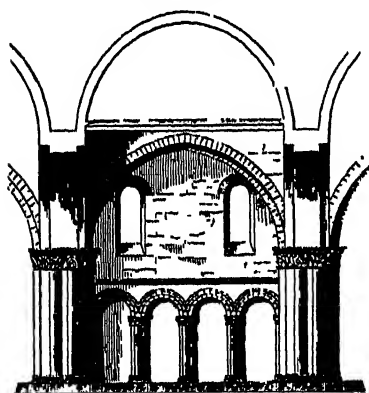
interesting and elegant outline to the building. They also point out a method by which roofs at least as high as those which afterwards prevailed could have been obtained in stone if this mode of vaulting had been persevered in. The church of St. Sergius at Angers has



587 View of Chevet at Fontevrault. (From Faultrier.)

pointed arches, certainly of an earlier date, but whether so old as this is not quite certain. It has already been suggested that all circular churches were originally sepulchral, or intended to be so. There can also be little doubt but that the halves of

round churches, which, as explained above, were adopted as the chevet termination of French basilicas, were also intended either to symbolise a tomb-house or relic shrine, or actually to serve as the sepulchres of distinguished personages. This certainly appears to have been the case in the earlier French examples, and among these one of the most splendid



588. Elevation of one of the Bays of the Nave at Fontevrault. (From Vernelli.)

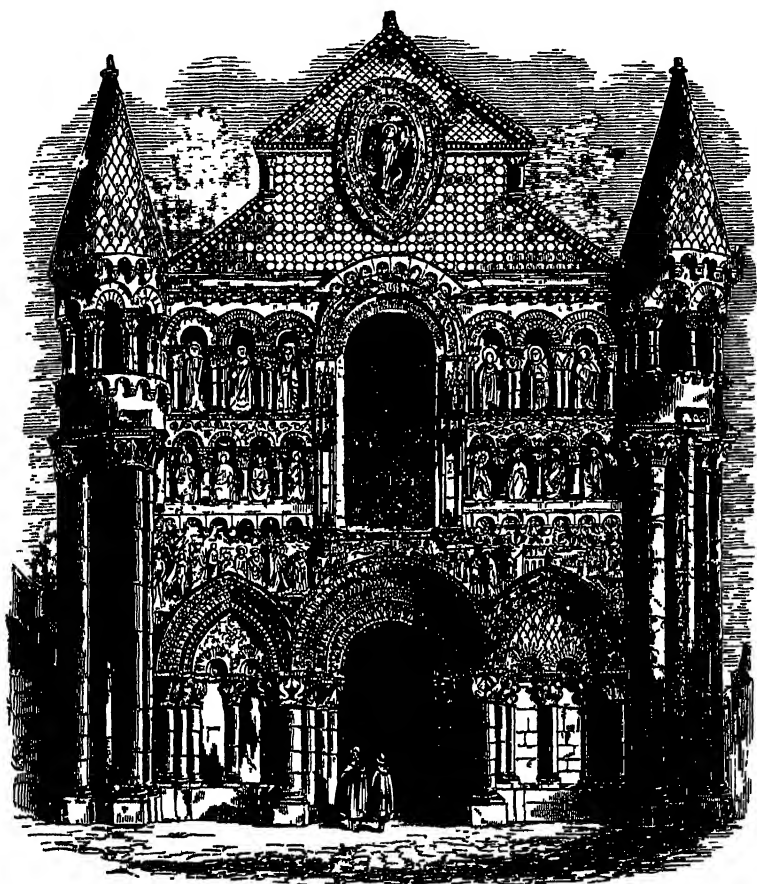
in this province, indeed, almost the only one of any real importance, is that of Fontevrault, where repose, or rather reposed, the remains of two of our Plantagenet kings, Henry II. and Richard I., with others of their family. As will be seen from the woodcut (No. 587), it is a mausoleum worthy of them, and a pleasing example of the style of the age, and though certainly not so peculiarly Anglo-vine as the apsidal churches of Angers and Poitiers, has still distinguishing characteristics which

are not found in any other province of France. The nave is surmounted by four domes, as is usual in this and the more southern provinces, and it is only in having an aisle trending round the apse that it differs from the ordinary churches. It may be seen from the plan (Woodcut No. 586) how awkwardly this is done, and how ill its narrow dimensions agree with the spaciousness of the nave.

Woodcut No. 588 demonstrates how similar the domes of its nave

are to those of Angoulême, Souillac, and those of the South—this domical arrangement being, in fact, as characteristic of this age and locality as the intersecting vault afterwards became of the Northern provinces

If the apse or chevet of this church is not so strictly Angiovine as other examples, the façade of the church of Notre Dame de Poitiers



589. Façade of Church of Notre Dame at Poitiers. (From Chapuy, 'Moyen-Âge Monumental')

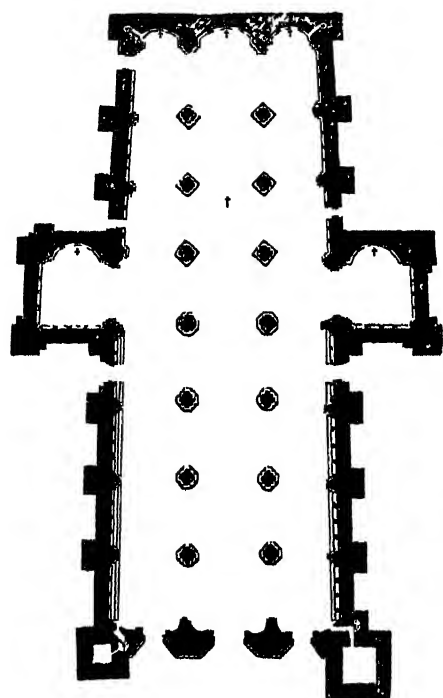
(shown in Woodcut No. 589) is not open to the same remark, being strictly local in all its parts. Originally the one window it possessed was circular; but in the 15th century, as may be seen from the mouldings then introduced, it was cut down to its present form, no doubt to make more room for painted glass, which at that age had superseded all other modes of decoration—whereas in the 12th century, to which the church belongs, external sculpture and internal mural paintings were the prevailing modes of architectural expression. It

will be observed from the preceding woodcut that sculpture is used in a profusion of which no example belonging to a later age exists; and though we cannot help admiring the larger proportions and broader masses of subsequent builders, still there is a richness and a graphic power in the exuberant sculpture of the earlier façades which we miss in after ages, and of which no mere masonic excellence can ever supply the place.

This, though not the largest, is probably the best and richest church of its class in this province. The border churches of Parthenay,

Civray, and Ruffec, all show traces of the same style and forms all more or less richly carried out; but none have the characteristic corner towers, nor do they retain their pedimented gable so perfect as Notre Dame at Poitiers.

Besides this one there are four churches in Poitiers, all which were certainly erected in the 11th century, and the greater part of them still retain unaltered the features of that age. The oldest, St. Hilaire (A.D. 1049), is remarkable for an irregularity of plan sufficient to puzzle all the antiquaries of the land, and which is only to be accounted for on the supposition of its having been built on the foundation of some earlier church, which it has replaced.



590. Plan of Cathedral at Poitiers. (From Coulier's 'Histoire de la Cathédrale de Poitiers.') Scale 100 ft. to 1 in.

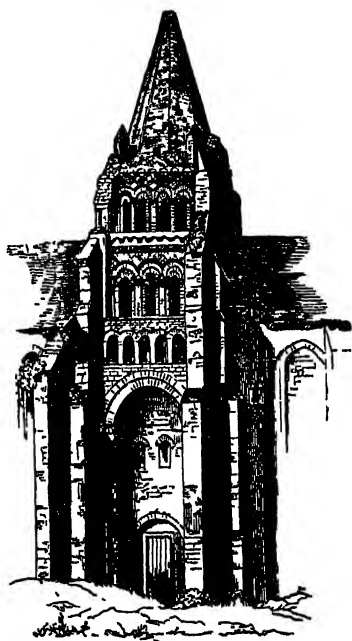
Montierneuf (1066) possesses in its nave a circular-headed tunnel-vault, ornamented with transverse ribs only, but resting on arches which cut slightly into it. It has no string-course or plain wall, as is usual in the South, and in this shows a tendency towards intersecting vaulting, indicative of an approach to the Northern style.

The most remarkable parts of St. Porchaire and St. Radegonde are their western towers, which are fine specimens of their class, especially that of the latter, which changes pleasingly into an octagon before terminating in a short spire. Altogether this church shows that elegance of feeling the want of which is a chief defect of the contemporary Norman style.

The cathedral of Poitiers was founded in the year' 1161. Its eastern end belongs to a transitional period, while its western front was not completed till the pointed Gothic style had reached its utmost perfection, 200 years later. Its plan, however, probably belongs to the earlier period, and presents so strong a contrast to the Northern churches of the same date that it may be quoted here as belonging to the style which we are describing. The east end is square externally, but internally it contains 3 shallow niches like those on each side of St. Trinité at Angers. Its transepts are mere chapels, but its most remarkable feature is the convergence of its sides towards the east; and as its vault sinks also towards that end, a false perspective is attained which certainly at first sight gives the church an appearance of greater length than it really possesses. The 3 aisles, too, being of the same height, add to the effect of space; so that, taken as a whole, this church may be quoted as the best example known of the system of attaining a certain effect by these means, and is well worthy of study on this account. It, however, I think, admits of no doubt that the Northern architects were right in rejecting all these devices, and in basing their efforts on better understood and more honest principles.

It is in this province that, proceeding from the South, spires are first found in common use. The characteristic of the South is the square flat-roofed tower or octagonal dome. In Anjou, towers standing by themselves, and crowned by well-proportioned spires, seem early to have been introduced, and to have been considered almost essential parts of church architecture. The representation (Woodcut No 591) of that attached to the interesting church of Cunault, on the Loire, is of the most common type. There is another at Chemillé, almost exactly like it, and a third on the road between Tours and Loches, besides many others which but slightly differ from these in detail. They all want the aspiring lightness afterwards attained in Gothic spires, but their design and ornaments are good, and their outlines well suited to the massive edifices to which they are attached.

Most of the conventual buildings attached to the churches in this



591. Spire at Cunault. (From Faultrier)

province have disappeared, either during the struggle with the Huguenots, or in the later and more disastrous troubles of the Revolution, so that there is scarcely a cloister or other similar edifice to be found in the province. One or two fragments, however, still exist, such as the Tour d'Évrault.¹ This is a conventual kitchen, not unlike that at Glastonbury, but of an earlier age, and so far different from anything else of the kind that it was long mistaken for a building of a very different class.

Another fragment, though probably not ecclesiastical, is the screen of arches recently discovered in the hôtel of the Prefecture at Angers. As a specimen of elaborate exuberance in barbarous ornament it is unrivalled even in France, but it is much more like the work of the Normans than anything else found in the neighbourhood. Owing to its having been so long built up, it still retains traces of the colouring with which all the internal sculptures of this age were adorned.

The deficiency in ecclesiastical buildings in this province is made up in a great measure by the extent and preservation of its Feudal remains, few of the provinces of France having so many and such extensive fortified castles remaining. Those of Angers and Loches are two of the finest in France, and there are many others scarcely less magnificent. Few of them, however, have features strictly architectural; and though the artist and the poet may luxuriate on their crumbling time-stained towers and picturesque decay, they hardly belong to such a work as this, nor afford materials which would advance our knowledge of architecture as a *fine art*.

¹ This building is well illustrated in Turner's 'Domestic Architecture.'

CHAPTER IV.

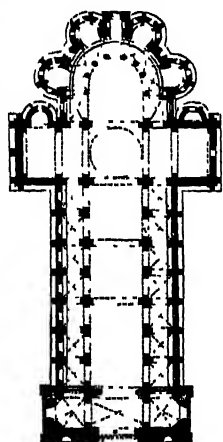
AUVERGNE.

CONTENTS

Church at Issoire—Clermont—Fortified Church at Royat.

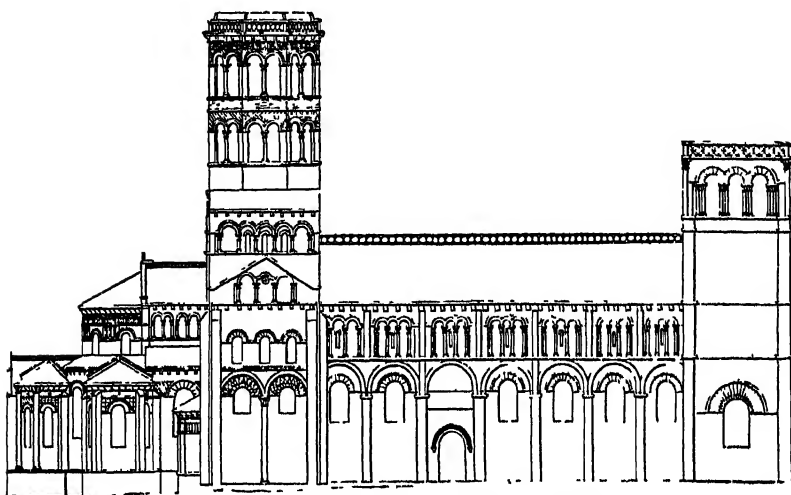
THE last of the Southern provinces which requires to be distinguished is that of Auvergne, one of the most beautiful as well as one of the most complete of the round Gothic styles of France. The country in which it is found is as distinctly marked out as the style, for no naturalist can cross the frontier of the territory without at once being struck by the strange character of its scenery. It is a purely volcanic country, to which the recently extinguished craters impart a character not found in any other province of France. Whether its inhabitants are of a different race from their neighbours has not yet been investigated. At all events, they retain their original characteristics less changed than any other people inhabiting the South of France. Their style of architecture is distinct, and early reached a degree of perfection which no other in France had then attained, it has, moreover, a greater resemblance than we have hitherto found in France to the Lombard and Rhenish styles of architecture. The other styles of Southern France—whatever their beauties may be—certainly never reached that degree of independent completeness which enables us to class that of Auvergne among the perfected styles of Europe.

In the department of Puy de Dôme there are at least four churches of the typical form of this style, which have been edited by M. Mallay—those of Issoire, of N. D. du Port at Clermont, of Orcival, and of St. Nectaire—which only differ from one another in size, and in the arrangement of their apsidal chapels. That of Issoire has a square central chapel inserted, which is wanting at Clermont and Orcival, while St. Nectaire has only three instead of four apsidal chapels.



592. Church at Issoire.
(From Mallay.)
Scale 100 ft. to 1 in.

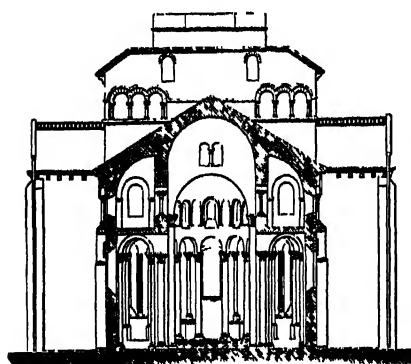
The largest of these is that of Issoire, of which a plan is here given, from which it will be seen that, though small, it is beautifully arranged. The transepts are just sufficiently developed to give expression to the



593. Elevation of Church at Issoire. (From Malley.) Scale 50 ft. to 1 in.

exterior, and to separate the nave from the choir, which are beautifully proportioned to one another.

They all possess central towers, raised on a mass of masonry extending to the whole width of the church, which gives them a breadth of base found in no other style. The want of this is painfully felt



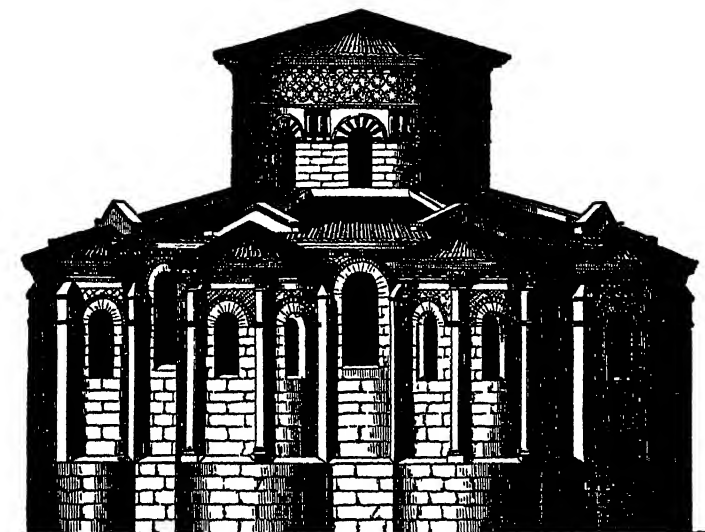
594. Section of Church at Issoire, looking East. (From Malley.) Scale 50 ft. to 1 in.

in most of our own central spires, all of which need something more to stand upon than the central roof, out of which they seem to grow; but I do not know that any attempt was ever made to remedy the difficulty anywhere but in Auvergne. All these churches were intended to have western towers, the massive foundations for which are found in every example, though there does not appear

to be a single instance in which these exist in a complete state.

The side-aisles are always covered by intersecting vaults, but that of the nave is invariably a simple tunnel-vault, as in the Southern styles, ornamented by occasional transverse ribs, and which in the church at Issoire is slightly pointed.

To support this great vault, a semi-vault is carried over the side-aisles—as shown in the section—which forms a massive and perfect abutment to the thrust of the great arch, besides, as before pointed out, rendering the vault independent of a wooden covering, which, though in some instances supplied, was certainly not originally intended. The defect of this arrangement is of course evident, as compared with the Northern styles, inasmuch as a clerestory was impossible, and the only effective light that could be admitted was through the side-aisles. These churches, however, have an approach to a clerestory not found in that at Fontfroide, before quoted, in having a triforium or range



595. Elevation of Chevet, Notre Dame du Port, Clermont. (From Chapuy.) No scale.

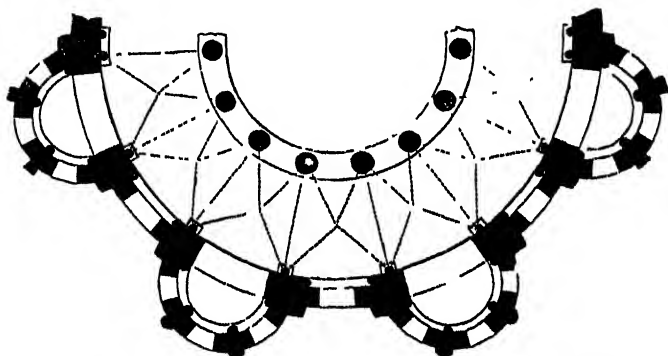
of arches opening into the gallery, which gave a lightness of character to the superstructure, and admitted to a certain extent a borrowed light.

Externally, the projection of the buttresses is slight, and they are connected by arches, struck from the same centres as the windows, above which three small arches relieve and ornament the upper part of the nave. The central arch of these is pierced with the small window which lights the upper gallery. Above this is a cornice of more elegance and of greater projection than is usually found in churches of this age.

The most beautiful and most admired feature of the style is the arrangement of the chapels of the chevet externally.

In the view given above of St Sernin, Toulouse (Woodcut No. 578), as in almost all the churches of that style, it will be observed how awkwardly these chapels are stuck on, as if they were after-

thoughts, and altogether foreign to the main lines of the building. Here, however, all the parts are pleasingly subordinated one to the other, and the whole are so grouped as to form a design equal, if not superior, to the galleried apses of the German and Lombard churches. The place of these galleries is here supplied by a mosaic decoration formed with the different coloured lavas of the extinct volcanoes of the district, which gives not only a pleasing local character to the style, but is interesting as the only specimen of external polychromatic decoration now to be found so far to the north. In effect, this is perhaps hardly equal to the open galleries of the German churches, but the expense must have been considerably less, and the variety of the outline of the chevet arrangement, as compared with the simple apse, gives to these churches some advantages over the contemporary buildings on the Rhine. Indeed, as far as external decoration is concerned, it may be questioned whether the French ever surpassed these;



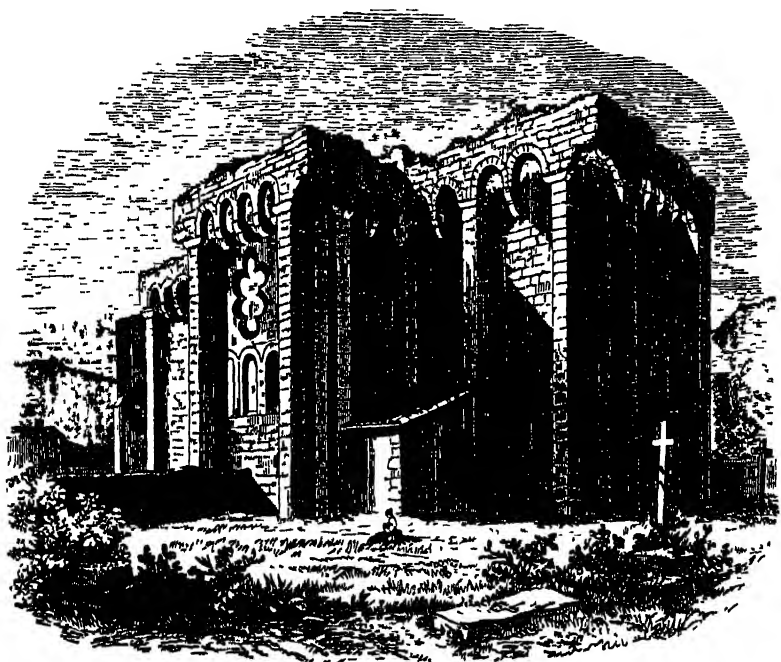
596. Plan of Chevet, Notre Dame du Port, Clermont. (From Chapuy.) No scale.

and had they been carried out on the same scale as those of Amiens and Chartres, they would probably be thought more beautiful. It is true the flying buttresses and pinnacles of the pointed style enabled the architects to introduce far larger windows and gorgeous decorations of painted glass, and so to improve the internal effect of their churches to an immense extent; but this was done at the sacrifice of much external simplicity of outline and propriety of effect, which we cannot but lament could not be reconciled with the requisite internal arrangements.

The age of these churches is not very well ascertained. M. Mallay is inclined to place them principally in the 10th century, though the pointed form of the vault at Issoire induces him to bring that down to the 12th century; but we have seen enough to know that such a pointed form, on the contrary, is more likely to be ancient than the rounded one, which requires better construction, although in that age it was thought more beautiful. My own impression is, that they

belong generally to the 11th century, though some were no doubt commenced in the 10th, and probably continued to the 12th, but their uniformity of style is such, that not more than one century could have elapsed between the first and the last. Only one circular church, so far as I know, is found in the district. It is a sepulchral chapel in the cemetery at Chambon, small in size, being only 26 ft wide over all, but elegant in its proportions, and showing the same style of decoration as the apses of the larger churches.

Among the exceptional churches of this district, one of the most interesting is that of Royat illustrated in Woodcut No 597, being a



597.

Fortified Church at Royat. (From Gallhabaud)

specimen of a fortified church, such as are sometimes, though not frequently, found in France. That at Maguelonne, quoted above (p. 57), is another, and there are several others in the South of France; but none probably either so complete or showing so many castellated features as this. In its ruined state we lose the western, or possibly the central tower, which might have somewhat restored its ecclesiastical character; but even as it is, it is a singularly picturesque and expressive building, though it speaks more of war and bloodshed than of peace and goodwill to all men.

CHAPTER V.

BURGUNDY.

CONTENTS

Church of St. Martin d'Ainay—Cathedral at Le-Puy-on-Vélay—Abbeys of Tournus and Cluny—Cathedral of Autun—Church of St. Menoux

THE province of Burgundy was architecturally one of the most important in France during the Middle Ages, but one the limits of which it is difficult to define. This is partly owing to the extreme fluctuation of the political power of the kingdom or dukedom, or whatever it might be, but more to the presence of two distinct peoples within its limits, the one or other of which gained the ascendancy at various intervals, and according as each was in power the architectural boundaries of the province appear to have changed. In Provence the Roman or Classical element remained superior down to the time when Paris influenced that province as it did all the rest of France, but this event did not take place till very nearly the end of the Gothic period. In Burgundy, on the other hand, the Classical and Barbarian streams flowed side by side—at times hardly mingling their waters at all, but at others so amalgamated as to be undistinguishable, while again in remote corners either style is occasionally found to start up in almost perfect purity.

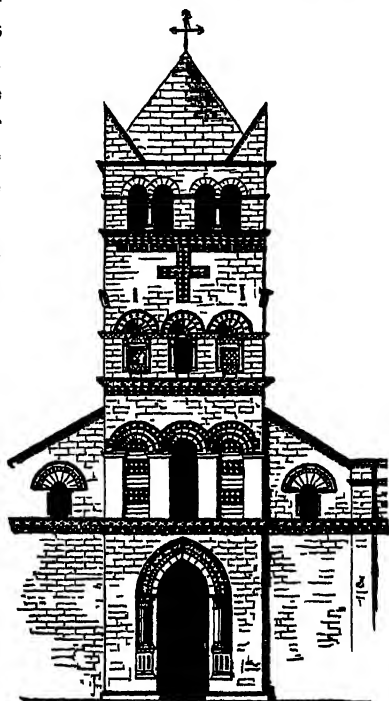
It would add very much to the clearness of what follows if we could tell who the Burgundians were and whence they came: neither of which questions appears as yet to have received a satisfactory solution. That they differed in many respects from the other Barbarians who assisted in overthrowing the Roman Empire will probably be admitted; but in the present stage of ethnographic knowledge it may seem too daring to assert that they had Turanian blood in their veins, and were Buddhists in religion, or belonged to some cognate faith, before they settled on the banks of the Saône or the Rhone. Yet if this were not so, it appears impossible to account for the essentially monastic form which characterised this province during the whole Gothic period.

From the time at least when St. Gall and Columban settled themselves at Luxeuil till late in the Middle Ages, this country was the

first and principal seat of those great monastic establishments which had so overwhelming an influence on the faith and forms of those times. We must go either to India in the flourishing period of Buddhism, or to Thibet in the present day, to find anything analogous to the monastic establishments of the 11th century in this district. All these monasteries have now passed away, and few have left even any remains to attest their former greatness and magnificence. The great basilica of Cluny, the noblest church of the 11th century, has been wholly removed within the present century. Clairvaux was first rebuilt in the style of the Renaissance, but has been finally swept away within the last few years. Cîteaux perished earlier, and little now remains to attest its former greatness. Luxeuil is an obscure village. The destruction of the church of St. Benigne, at Dijon, has already been referred to, and it would be easy to swell the catalogue of similar consequences of the great Revolution.

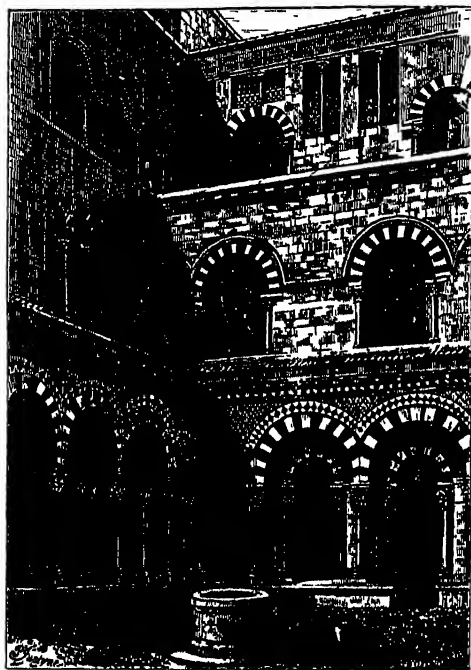
Tournus still remains, and at Vezelay fragments exist. Charlier, Avallon, Autun, Langres, and Besançon, still possess in their cathedrals and churches some noble remnants of Burgundian architecture. Besides these, there are numerous parish churches and smaller edifices which would easily enable us to make up a history of the style, were they carefully examined and drawn. The architecture of Burgundy, however, has not yet been examined with the attention it deserves, and it would require long and patient personal investigation to elucidate its peculiarities.

The church of St. Martin d'Ainay at Lyons is an early and beautiful specimen of the style when used without any classical influence; yet four Roman pillars support the intersection of the nave and transept. Its western front (Woodcut No. 598) was erected probably in the 10th century, and is decorated with colours and patterns which are characteristic of the style. Nor does there seem any reason for doubting but that the pointed arch of the entrance doorway belongs to the period to which the church is assigned.



598. Façade of St. Martin d'Ainay.
(From a drawing by J. B. Waring.) No scale.

The cathedral of Le-Puy-en-Vélay is another example of the same style¹ The east end and the two first bays of the nave belong to the 10th century The church progressed westward at the rate of two bays in a century till the last two were completed with the wonderful cavernous porch under them about the year 1180 The whole length of the church is 215 ft, and its width across the nave is a little over 80. Externally its most remarkable feature is the façade of the south transept, which is perhaps the richest and most elaborate specimen of the Aînay style of decoration existing. On the north side is the



599. Cloister of Cathedral of Le-Puy-en-Vélay.
(From a Photograph.)

cloister, which is a singularly elegant specimen of the style, but very classical in detail The pillars are almost Corinthian in outline (Woodcut No. 599), but the blunder the Romans made when using pillars with arches has in this case been avoided If reference is made to Woodcuts 211 and 213, or to any others representing the classical form, the difference will be at once perceived. In both instances the pillars were used merely as ornaments, but with the Romans they were nothing but useless additions, without even the pretence of utility. In this cloister they support the arches, and are

veritable parts of the construction. It would be difficult to find any apter illustration of Pugin's famous antithesis than these examples of Roman and Burgundian architecture—the one is constructed ornament, the other ornamented and ornamental construction—and notwithstanding its rudeness, the Burgundian example is far more pleasing than the Roman, and, if used with classical details, this arrangement might now be introduced into any Italian design with the most satisfactory effect.

The church of St. Bénigne at Dijon, mentioned above, was one of

¹ See a paper on this church by Mr Street, in 1861, read to the Institute of British Architects. (R. I. B. A. Transactions, 1860-61.)

the oldest in Burgundy, and was probably an excellent type of the style of that country. But its total destruction and the insufficiency of the plates published by Dom Plancher¹ preclude anything like a satisfactory study of it. The abbey church of Tournus (Woodcut No. 600) is perhaps nearly as old, its antiquity being manifested by the rudeness both of its design and execution. The nave is separated from the aisles by plain cylindrical columns without bases, the capitals of which are united by circular arches at the height of the vaults of the aisle. From the capitals rise dwarf columns supporting arches thrown across the nave. From one of these arches to the other is thrown a transverse tunnel-vault, which thus runs the cross way of the building; being, in fact, a series of arches like those of a bridge extending the whole length of the nave. This is, I believe, the only known instance of this arrangement, and is interesting as contrasting with the longitudinal tunnel-vaults so common both in this province and in the South.

It is a curious instance of an experiment, the object of which was the getting over those difficulties afterwards



600.

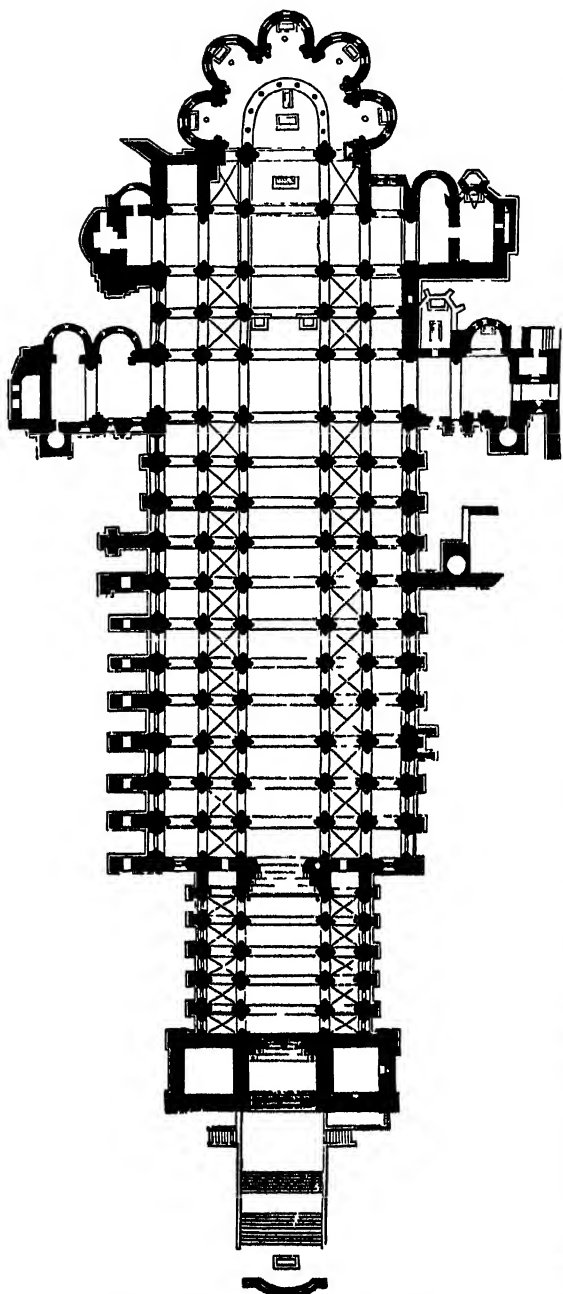
View of Interior of Abbey at Tournus.
(From Taylor and Nodier.)

removed by the invention of the intersecting vault. In the meantime this Tournus roof offered some advantages well worthy of consideration. The first of these was that the thrust of the vault was wholly longitudinal, so that only the supporting arches of the transverse vaults required to be abutted. These being low and in a well-defined direction were easily provided for. Another advantage was, that it allowed of a large and well-defined clerestory, which, as we have seen, was impossible with the longitudinal vaults. On the other hand it

¹ 'Histoire Générale de Bourgogne,' 4 vols. fol., Dijon, 1739; p. 81.

might seem to be a fatal objection that the eye instead of being

conducted pleasantly along the vault was continually interrupted by a series of cross barrel vaults, this objection, however, is more theoretical than practical, for, owing to the abundant light which enters through the clerestory windows (not suggested at all in the woodcut), and the fact that from the west end looking down the nave the barrel vaults are scarcely seen, the general effect is most pleasing, and it is singular that so happy a solution of the problem, both artistically and constructively, should not have been followed, or that this should be a unique example. The columns in the apse are carried on a podium 6 ft. high, similar to that found in the Holy Sepulchre, which was built by the Crusaders, and constitute a pleasing variety to the ordinary apsidal termination. A



661. Plan of Abbey Church at Cluny. (From Lorain's 'Histoire de l'Abbaye.') Scale 100 ft. to 1 in.

crypt of much earlier date exists under the whole choir, and is specially interesting as showing in its vault the rough centering on which it was apparently built.

In the nave of this church all the arches are circular, in the choir, which dates early in the 11th century, if not before, and which is perhaps older than the nave, the great transverse arches are slightly pointed, and support at the intersection a dome (the pendentives of which are formed of squinches carried on wall-shafts), which forms the most beautiful feature in the church. Similar features are found in the churches of le Puy-en-Vélay, St. Martin d'Ainay at Lyons and elsewhere.

The pride of Burgundy was the great abbey church of Cluny, which, with its narthex or ante-church, measured 580 ft in length, or considerably more than any other church erected in France in any age. Its nave was throughout 37 ft. 6 in. in width, and it had double side-aisles, making the total internal width 120 ft, while the whole area covered by it was upwards of 70,000 ft. But colossal as these dimensions are, they convey no adequate idea of its magnificence. The style throughout was solid and grand, and it must have possessed a degree of massive magnificence which we so frequently miss among the more elegant beauties of subsequent erections.

The semi-dome of the chevet was supported by eight noble columns, through which was seen in perspective a circle of five apsidal chapels. Externally the roof was crowned by five larger and three smaller towers; and the whole was carried up solidly to a height unrivalled among the buildings of this age. What added to its interests was, that the church at least was at the time of its destruction an almost unaltered specimen of the architecture of the 11th and 12th centuries, having been commenced in 1089 by St. Hugues, and dedicated in 1131. The narthex or ante-chapel, though somewhat more modern, was probably completed within the limits of the 12th century. These dates have been disputed, but principally on account of the theories prevalent regarding the origin of the pointed arch. This feature was used here, as it is found elsewhere, in all the pier arches separating the nave from the aisles—the vaulting of the aisles having probably been also pointed, while the great vault of the church is a plain tunnel-vault with transverse ribs on its surface. That of the narthex is a transverse vault of a later date, but of singularly clumsy construction. Whether it had a clerestory or not, is not quite clear from such drawings as we possess; but if not, it undoubtedly had a double gallery throughout, the upper range of which, if not both, served to admit light.

We should hardly be able to make out, from the representations we possess, what the exact ordinance of this church was were it not that some other contemporary churches in the same style still remain to us.

Among these, one of the most perfect is the cathedral at Autun, formerly the chapel of the dukes of Burgundy, commenced about the year 1090, and consecrated 1132. The arrangement of its nave is extremely similar to that of Cluny, with these differences, that at Autun, the great vault is slightly pointed, and attached to the piers of the nave are pilasters instead of three-quarter columns. In the ante-church, however, at Cluny, the same pilastered arrangement occurs. This is the characteristic of the true Burgundian style, and so peculiar is it, and so classical, that some antiquaries have not hesitated to consider it as a bad imitation of Gothic forms belonging to the 15th or 16th centuries. In fact the fluted columns or pilasters, their Corinthian capitals, and the whole arrangements are so eminently



602 View in Aisle at Autun.
(From Chapuy, 'Cathédrales Françaises'.)

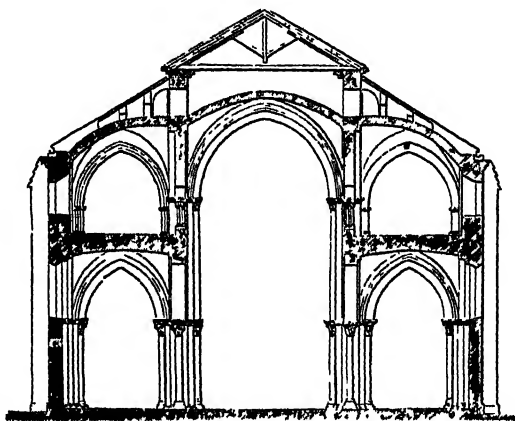


603 View in Nave at Autun.
(From Chapuy.)

classical, as almost to justify the doubt in those who are not familiar with the history of the southern styles of France. There can, however, be no doubt as to the age of these examples, and as little as to the models from which they are copied; for in this very city of Autun we have two Roman gateways (one of which is represented in Woodcut No. 218), and there are others at Langres and elsewhere, which, except in the pointed arch and other constructive peculiarities, are almost identical with the style of these churches. Whether from want of familiarity with this style, or from some other cause, it certainly is not pleasing to our eyes, and we therefore turn with pleasure to the ruder but more purpose-like inventions of the purely Gothic architects of the same age.

Among these the province affords no more beautiful specimen than the nave of the church of Vezelay, which possesses all the originality of the Norman combined with the elegance of the southern styles. In this specimen the pier arches are wide and low, there is no triforium of any sort, and the windows are small. The vault is formed by immense transverse ribs, crossing from pier to pier, and forming square compartments, each divided by plain intersecting arches, without ribs, and rising considerably in the centre. This certainly is an improvement on the vault at Cluny, though it cuts the roof too much up into divisions. Perhaps its greatest defect is its want of height, being only 60 ft. in the centre, while the total width is 86 ft. from wall to wall. But the details of the whole are so elegant as in a great measure to redeem these faults.

The narthex, or ante-church, resembles that at Cluny both in its importance and in being somewhat more modern than the church itself. At Vezelay (Woodcut No. 604) it dates from the beginning of the 12th century, while the nave seems wholly to belong



Section of Narthex at Vezelay
(From Didron's 'Annales Archéologiques'.)

to the 11th. It is an extremely instructive example of the progress of vaulting. It has the bold transverse ribs, and the plain intersecting vaults, which are here in accordance with the southern practice, abutted by the arches of the galleries. In the walls of the galleries are windows large enough to admit a considerable amount of light. But the vaults are here fast losing their original purpose. The arch construction supports the solid external roof over the side-aisles, but the central vault is covered by a wooden roof, so that the stone vault has become a mere ceiling, leaving only one easy step towards the completion of the plan of Gothic roofing. This step was to collect the vaults of the side galleries into a mass over each pier, and use them as flying buttresses, and to employ wooden roofs everywhere, wholly independent of the vaults which they covered.

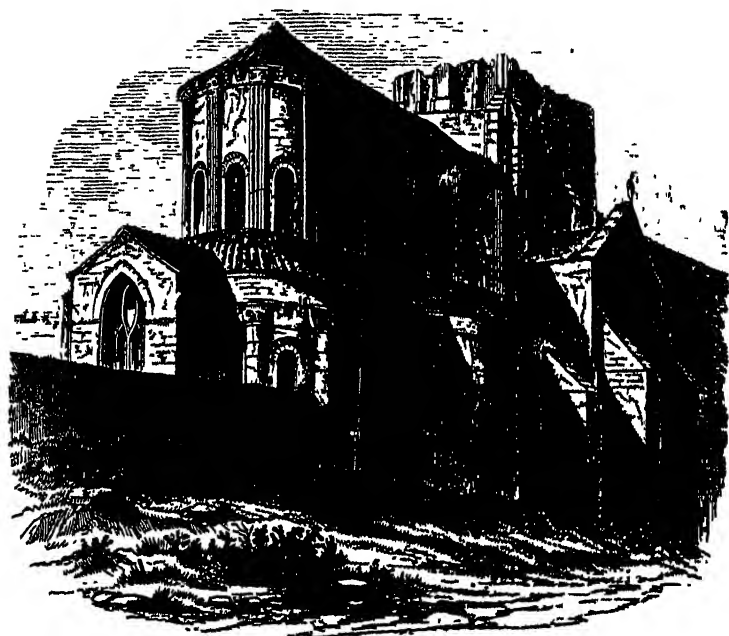
Vezelay is one of the most beautiful of the remaining churches of its age in Burgundy, notwithstanding that the choir, which is a chevet in the early pointed style, like those in the northern province, rather disturbs the harmony of the whole.

Among the remaining churches of this class, the cathedral at

Besançon is one of the few double-apse churches of France, and is, in plan at least, very much more like those we find on the banks of the Rhine

The cathedral at Vienne, mentioned above (p. 58), might, from some of its details, particularly the form of the pier arches, be fairly classed with this style, showing as it does the fluted pilasters and other classical adjuncts found here. These peculiarities are common both to this and the Provençal style, but the boundary between them is by no means clearly defined.

On the northern border of the province we find the church of St.



605. East End, St. Menoux. (From Allier, 'L'ancien Bourbonnais'.)

Menoux (Woodcut No. 605), belonging certainly in many of its details to the style we are now describing. This is most distinctly observable in the exterior of the apse of the chevet, a feature which is seldom found unaltered; here it is surrounded by a series of pilasters of rude classical design, which give to it a peculiar local character. Internally too, its chevet (Woodcut No. 606) is remarkably elegant, though less Burgundian in style. It shows to what an extent the stilting of round arches could be used to overcome the difficulty of combining arches of different spans, but all requiring to be carried to the same height. Like all the old churches of the province, it possesses a large and important narthex, here the oldest part of the church, and a rude and

characteristic specimen of a style of architecture that can hardly be later than the 10th century.

These few specimens must suffice to define a style which well deserves a volume to itself, not only on account of its own architectural merit, but from the enormous influence exercised both by the



606.

Chevet, St. Menoux. (From Allier.)

order itself and by its monastic founders on the civilisation of Europe in the age to which it belongs. During the 11th and 12th centuries Cluny was more important to France than Paris. Its influence on the whole of Europe was second only to that of Rome—civilising barbarians by its missionaries, notwithstanding the feudal nobility, and in many ways counteracting the ferocity of the times.

CHAPTER VI.

FRANKISH PROVINCE.

CONTENTS

Exceptional buildings—Basse Œuvre, Beauvais—Montier-en-Der.

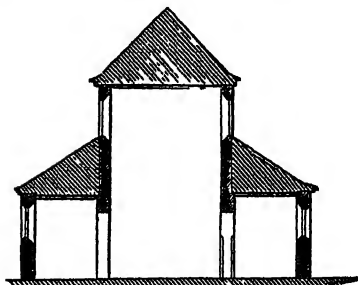
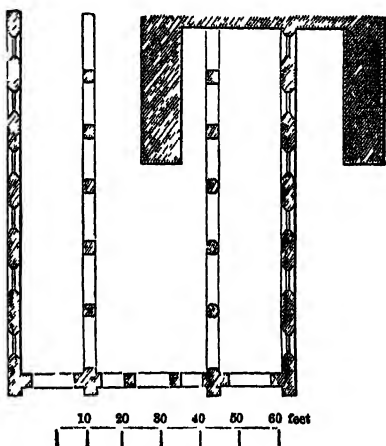
INTRODUCTORY.

THE architecture of the Northern division of France is certainly the most interesting subject in the whole history of the Mediæval styles, inasmuch as it comprehends the origin and progress of that form of pointed architecture which in the 13th century extended from Paris as a centre to the remotest corners of Europe, pervading the whole of Germany, Britain, and even Spain and Italy. In these countries it generally obliterated their own peculiar styles, and usurped their places, so that it became the Gothic style *par excellence*, and the only one ordinarily understood under that name. It has gained this distinction, not perhaps so much from any inherent merit of its own, as because it was the only one of all the Mediæval styles which was carried beyond the simple rudiments of the art, and enjoyed the advantage of being perfected by a powerful and united people who had advanced beyond the first elements of civilised society. It is needless now to inquire whether the other styles might not have been made as perfect, or more so, had the same amount of talent and of time been bestowed upon them. All we can say is, that no other style was so carried out, and it is impossible to attempt it now; the pointed Gothic had therefore the opportunity which the others were deprived of, and became the prevalent style in Europe during the Middle Ages. Its history is, therefore, that to which attention must always be principally directed, and from which all lessons and all satisfactory reasoning on the subject must be principally derived.

The great divisions into which the early history of the style naturally divides itself have already been pointed out. The great central province I have ventured to call the Frankish. It was there that the true Gothic pointed style was invented, and thence that it

issued in the middle of the 12th century, first pervading the two great subordinate divisions of Normandy on the one hand, and Burgundy on the other. In Normandy, before this time, a warlike race had raised themselves to power, and, with an inconsistency characteristic of their state of civilisation, devoted to sacred purposes the wealth they had acquired by rapine and plunder, covering their province with churches, and perfecting a rude style of architecture singularly expressive of their bold and energetic character.

In Burgundy, as we have just seen, both the style and its history differed considerably from this. From some cause which has not yet been explained, this country became early the favourite resort of hermits and of holy men, who founded here those great monastic establishments which spread their influence not only over France, but over the whole of Europe, controlling to an immense extent all the relations of European society in the Middle Ages. The culminating epoch of the architecture of Normandy and Burgundy was the 11th century. In the 12th the monarchical sway of the central province was beginning to be felt in them. In the 13th it superseded the local character of both, and gradually fused them with the whole of France into one great and singularly uniform architectural province.



LATIN STYLE.¹

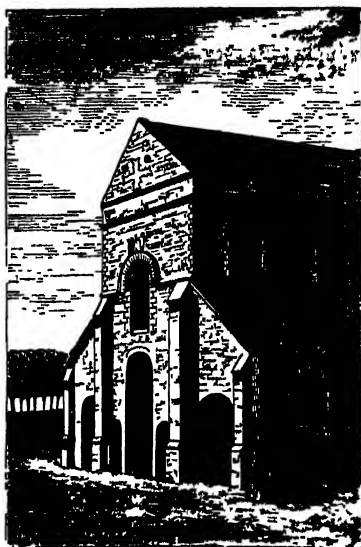
Before proceeding to describe the local forms of architecture in Central France it is necessary to say a few words regarding a class of buildings which have not hitherto been mentioned, but which must not be passed over. These cannot be included in any other style, and are so nearly devoid of architectural features, properly so called, that they might have been omitted but for one consideration. They bear so remarkable a

607. Plan and Section of Base Œuvre, Beauvais.
(From Weiller, 'Monuments Religieux de Beauvais'.)

¹ "Style Latin" is the name generally adopted for this style by the French architects.

resemblance to the earliest Christian churches of Rome on the one hand, and to the true Gothic on the other, that we cannot doubt their being the channel through which the latter was derived from the former. They are, moreover, the oldest churches in Northern France, which is sufficient to confirm this view.

The character of this style will be understood from the plan and internal and external view of one of its typical examples, the *Basse Œuvre* at Beauvais (Woodcuts Nos 607 and 608). It will be seen that this building consists of a nave and side-aisles, separated from each other by a range of plain arches resting on piers without either bases or capitals; on one side the angles are cut off, so as to give a



608.

External and Internal View of *Basse Œuvre*. (From Wolliez.)

slightly ornamental character; on the other they are left square. The central aisle is twice the width, and more than twice the height, of the lateral aisles, and has a well-defined clerestory; the roof, both of the central and side aisles, is a flat ceiling of wood. The eastern end has been destroyed, but judging from other examples, it probably consisted of three apses, a large one in the centre and a smaller one at the end of each aisle.

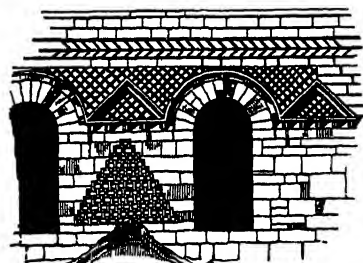
The similarity of the form of this church to the Roman basilicas will be evident on referring to the representations of those buildings, more especially to that of San Vincenzo alle Tre Fontane (Woodcut No. 408), though the details have nothing in common except in the use of flat tiles between the cornices of the arches, which is singularly characteristic of Roman masonry. The points in which this example is most evidently the source of some of the important peculiarities of

the true Gothic, are the subordination of the side-aisles to the central one, and the perfectly developed clerestory. These are not found in any of the styles of France hitherto described.

Eventually, as we shall shortly see, stone became the material used in the interior ceiling of Gothic vaults, but protected externally by a wooden roof. This stone vault was not, I believe, attempted in France before the 11th century. In the meanwhile, wooden-roofed churches, like that at Beauvais, seem to have been usual and prevalent all over the North of France, though, as may be supposed, both from the smallness of their dimensions and the perishable nature of their materials, most of them, have been either superseded by larger structures, or have been destroyed by fire or by the accidents of time.

M. Woillez describes five or six as existing still in the diocese of Beauvais, and varying in age from the 6th or 7th century, which probably is the date of the Basse Œuvre, to the beginning of the 11th century; and if other districts were carefully examined, more examples would probably be found. Normandy must perhaps be excepted, for there the rude Northmen seem first to have destroyed all the churches, and then to have rebuilt them with a magnificence they did not previously possess.

Churches of the same class, or others at least extremely similar to them, as far as we can judge from such representations as have been published, exist even beyond the Loire. There is one at Savonnières in Anjou, and a still more curious one at St. Généreux in Vienne, not far from Poitiers, which shows in great perfection a style of decoration by triangular pediments and a peculiar sort of mosaic in brickwork.



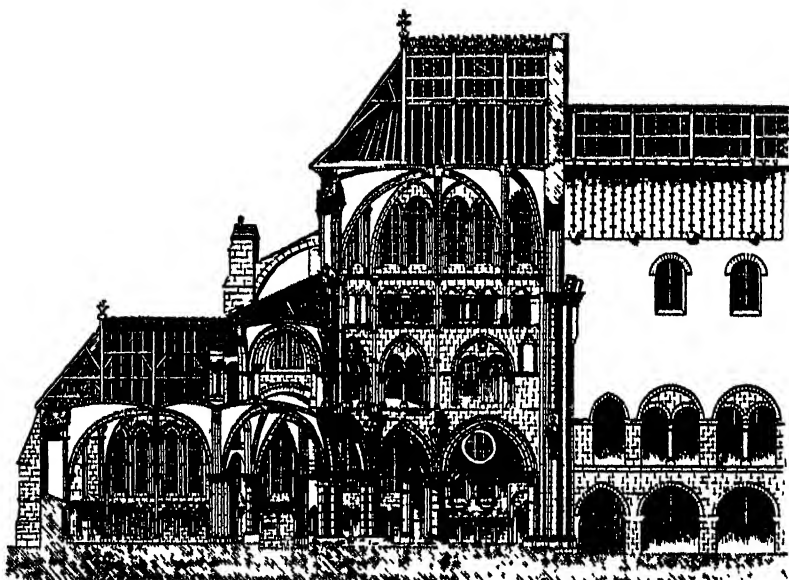
609. Decoration of St. Généreux.
(From Gallabaud.)

The same style of decoration is carried out in the old church of St. Jean at Poitiers, which probably is even older than the Basse Œuvre of Beauvais. The old church, which now forms the ante-church to St. Front at Périgueux (Woodcut No. 562), seems also to belong to the same class; but, if M. Félix de Verneilh's restoration is to be trusted, it approaches nearer to a Romanesque style than any other of its class, of which it may nevertheless possibly be the most southern example.

Perhaps the most interesting example of the style is the nave of the church of Montier-en-Der, near Vassy, almost due east from Paris. It is perfectly plain, very like San Vincenzo (Woodcut No. 408), and is a perfect Romanesque example with a wooden roof; the design for

which was probably brought direct from Rome when this church was erected in this remote village. What, however, gives it its greatest interest for our present purpose arises from the fact that the apse or choir was rebuilt in the 13th century, and we have consequently in immediate juxtaposition the Romanesque model as it was introduced to the Barbarians, and the result of their elaboration of it—the germ of the Gothic style and the full-blown flower.

As before pointed out (p. 49), the progress was slow in the formation of a new style during the 1000 years that elapsed between the building of the Temple of Diana at Nîmes and the Church at Carcassonne; but here, within the limits of two, or at most three



610. Section of Eastern portion of Church of Montier-en-Der. (From the 'Archives des Monuments,' &c.)

centuries, the progress made was so rapid as to be startling. The inhabitants of Central France appear at once to have comprehended the significance of the problem, and to have worked it out with a steadiness and energy of which it must be difficult to find another example. The nave of the church is as poor and as lean as it can well be, but every part of the choir is ornamented, while nothing is overdone; and there is not one single ornament which is not appropriate to its place, or which may not fairly be considered as a part of the ornamented construction of the building. It was an entirely new style invented on the spot, and complete in all its parts. Some of its ornaments were afterwards made more elegant, and more might have been done in this direction; but as here represented the style was complete, and it is certainly one of the most beautiful creations of the class which ever emanated from

the activity of the human brain. It is also interesting as being one of the few where every step in the progress can be traced and every result understood

What we have now to attempt, is to point out—as clearly as our limits will admit of—the steps by which the rude architecture of the western half of the church of Montier-en-Der was converted into the perfected style of the choir as shown in the woodcut on the previous page.

CHAPTER VII.

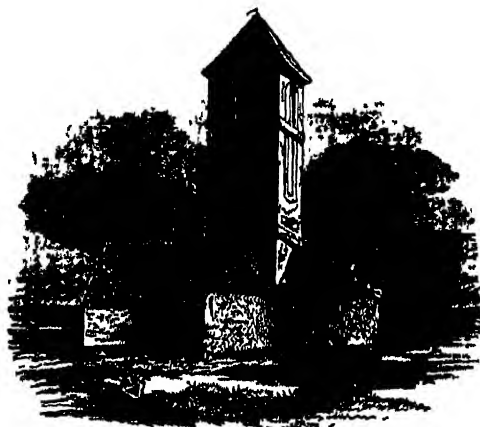
NORMANDY.

CONTENTS.

Triapsal churches—Churches at Caen—Intersecting Vaulting—Bayeux.

WITH one or two slight exceptions, the whole history of the Round-arched Norman Gothic¹ is comprehended within a period of less than a century. No building in this style is known to have been even commenced before the year 1050, and before 1150 the pointed style had superseded it in its native province. Indeed, practically speaking, all the great and typical examples are crowded into the last fifty years of the 11th century. This was a period of great excitement and prosperity with the Northmen, who, having at last settled themselves in this fertile province, not only placed their dukes on an equality with

any of the powers then existing in France, but by their conquest of England raised their chief to an importance and a rank superior to that of any other potentate in Europe except the German emperors of that day, with whose people they were, in fact, both by race and policy, more closely allied than they were with those among whom they had settled.



611.

Triapsal Church, at Querqueville.
(From Dawson Turner's 'Normandy'.)

There are two exceptional churches in Normandy which should not be passed over in silence: one is a little triapsal oratory at St. Wandrille; the other a similar but somewhat more important church at Querqueville, near Cherbourg, on the coast of Brittany. Both are rude and simple in their outline and ornaments; they are built with that curious herring-bone or diagonal masonry indicative of great age,

¹ Consult the Appendix, note 6.

and differing in every essential respect from the works of the Normans when they came into possession of the province. Indeed, like the transitional churches last described, these must be considered as the religious edifices of the inhabitants before that invasion; and if they show any affinity to any other style, it is to Belgium and Germany we must look for it rather than anywhere within the boundaries of France.

Amongst the oldest-looking buildings of pure Norman architecture is the church of Léry, near Pont de l'Arche. It is the only one, so far as is known, with a simple tunnel-vault, and this is so massive, and rests on piers of such unusual solidity, as to give it an appearance of immense antiquity. There is no good reason, however, for believing that it really is older than the chapel of the Tower of London, which it resembles in most respects, though the latter is of somewhat lighter architecture.

Passing from this we come to a series of at least five important churches, all erected in the latter half of the 11th century. The first of these is the church of Jumièges, the western end of which was principally erected by Robert, afterwards Bishop of London, and finally Archbishop of Canterbury. Its precise date is not very well known, though it was probably begun before 1050, and certainly shows a far ruder and less complete style of architecture than any of the later churches. It is doubtful whether it was ever intended to throw a vault over the nave; yet the walls and piers are far more massive than those of the churches of Caen, or that of Bocheville in its immediate neighbourhood. This last we know to have been commenced in the year 1050, and completed in 1066. This church still retains in a wonderful state of completeness all the features of a Norman church of that age—the only part of which is of a more modern date being the two western turrets, which are at least a century later.

The next of the series is the well-known Abbaye-aux-Hommes, or St. Stephen's, at Caen (Woodcut No. 612), commenced by William the Conqueror, 1066, in gratitude for his victory at Hastings, and dedicated eleven years afterwards. Then follow the sister church of the Trinité, or Abbaye-aux-Dames, commenced in 1083, and the parish church of St. Nicolas at Caen, begun in the following year. These two last were almost certainly completed within the limits of the 11th century.

Of all these the finest is St Stephen's, which is a first-class church, its extreme length being 364 ft. It was not originally so long, having terminated with an apse, as shown in the plan, Fig. 1, which was superseded about a century afterwards by a chevet, as shown, Fig. 2. This, however, was an innovation—all the round Gothic churches in Normandy having originally been built with apses, nor do I know of

a single instance of a chevet in the province. This circumstance points rather to Germany than to the neighbouring districts of France for the origin of the Norman style—indeed all the arrangements of this church are more like those of the Rhenish basilicas, that of Spire for example, than any of those churches we have hitherto found within the limits of France itself. This is more remarkable at Jumièges than even here. None of them, however, has two apses, nor are lateral entrances at all in use, on the contrary, the western

end, or that opposite the altar, is always, as in the true basilica, the principal entrance. In Normandy we generally find this flanked by two towers, which give it a dignity and importance not

found in any of those styles we have been examining. These western towers became afterwards in France the

most important

features of the external architecture of churches, though it is by no means clear whence they were derived. They are certainly of neither Italian nor German derivation, nor do they belong to any of those styles of the Southern provinces of France which we have been describing. The churches of Auvergne are those which perhaps show the nearest approach to them.

On the whole it appears most probable that the western fronts of the Norman

churches were taken from the façades of Germany, and the towers added to give dignity to them. As will be seen from the view (Woodcut No. 613), in St. Stephen's at Caen the feature is well marked and defined; for though the spires were apparently added at the same time as the chevet, the towers which support them evidently belong to the original design. They may be regarded as the prototype of the façades of nearly all the Gothic cathedrals of France. These western towers eventually superseded the attempt made to raise the principal external feature of the churches on the intersection of the nave with the transepts as had been done in the South, and they made the western front the most important part, not only in

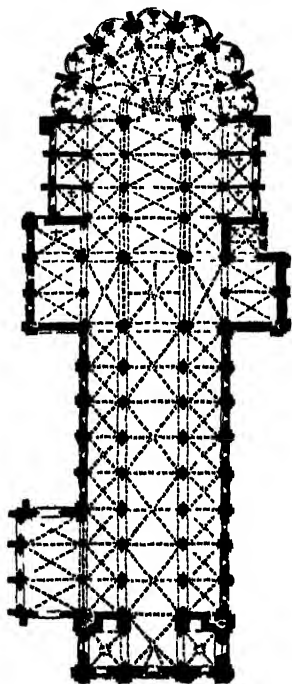


Fig. 2.

613. Plan of the Church of St. Stephen, Caen. (From Ramée, 'Histoire de l'Architecture.') Scale 100 ft. to 1 in.

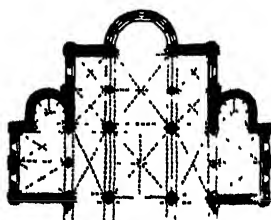


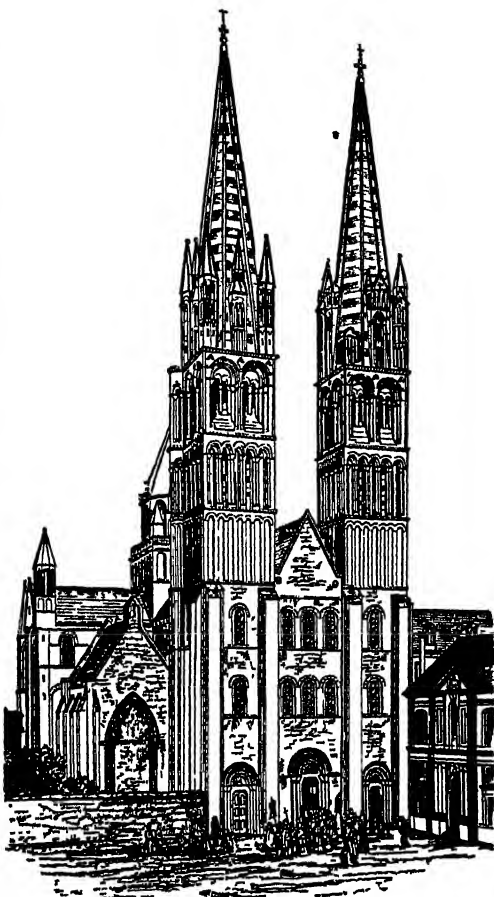
Fig. 1. Original Eastern Termination.

decoration, but in actual height Here and throughout the North of France, with the exception of the churches at Rouen, the central tower is low and comparatively insignificant, scarcely even aspiring to group with those of the western façade.

INTERSECTING VAULTING.

As there are few churches in France which illustrate so completely the difficulties of intersecting vaulting, and the struggle of the Mediæval architects to conquer them, as St. Stephen's, Caen, it may add to the clearness of what follows if we pause in our narrative to explain what these were.

The churches described hitherto possessed simple tunnel-vaults either of round or pointed forms, or, having no side-aisles, were roofed with square intersecting vaults of equal dimensions each way. The former plan was admissible in the bright South, where light was not so much required: but the latter expedient deprived the churches of several things which were always felt to be the powerful requisites of an internal style of architecture Without the contrast in height between the central and side aisles, the true effect of the dimensions could not be obtained. Without the internal

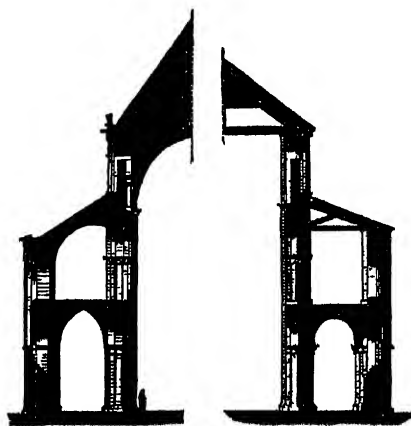


613. Western Façade of St. Stephen, Caen.
(From Pugin and Rittton's 'Normandy'.)

and without an ambulatory, processions lost their meaning. The compartments of the aisles being square, no difficulty was experienced

as regards them ; but the central aisle being both higher and wider, it became necessary either to ignore every alternate pillar of the aisle, and to divide the central roof equally into squares, or to adopt some compromise. This difficulty was not got over till the pointed arch was introduced, but in the meanwhile it is very instructive to watch the various attempts that were made to obviate it.

There can be little doubt that the Norman architects, with true Gothic feeling, always intended that their churches should eventually be vaulted, and prepared them accordingly, though in many instances they were constructed with wooden roofs, or compromises of some sort. Even at Jumièges, the alternate piers were made stronger, and the intention there and in other instances seems to have been to throw a stone arch across the nave so as to break the flat line of the roof,



614. Fig. 1, after Vaulting. Fig. 2, before Vaulting.
Section of Nave of St. Stephen, Caen.

and give it at least a certain amount of permanent character. In the Abbaye-aux-Hommes, Caen, even this does not appear to have been attempted in the first instance. The vaulting shafts were carried right up and made to support wooden trusses, as shown on the right hand of the diagram (Woodcut No. 614).¹ The intention, however, may have been to cut these away when the vault should come to be erected. In England they frequently remain, but rarely, if ever, in

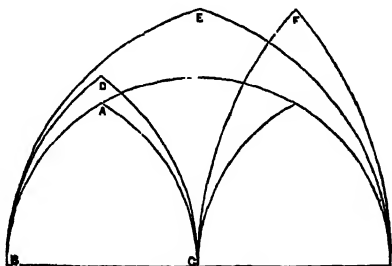
Normandy. The next step was to construct a quadripartite vault over the nave, and a simple arch supporting its crown over the intermediate shaft. This was soon seen to be a mistake, and in fact was only a makeshift. In consequence at Caen a compromise was adopted, which the Woodcut No. 616 will explain,—a sort of intermediate vault was introduced springing from the alternate piers.² Mechanically it was right, artistically it was painfully wrong. It introduced and declared

¹ From a paper by Mr. Parker on this subject, read to the Institute of British Architects.

² This arrangement is known by the name of *hexapartite*, or *sexapartite*, because the compartment of the vault having been divided into four by the great diagonal arches crossing one another in the centre (which was the

quadripartite arrangement), two of the four quarters were again divided by the arch thrown across from one intermediate pillar to the other, thus making six divisions in all, though no longer all of equal dimensions, as in the quadripartite method. Both these arrangements are shown in plan on Woodcut No 612.

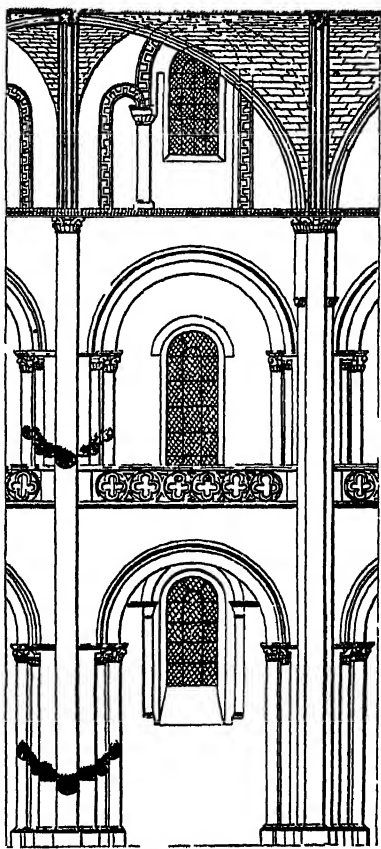
a number of purely constructive features without artistic arrangement or pleasing lines, and altogether showed so plainly the mere mechanical structural wants of the roof as to be most displeasing. Before, however, they could accomplish even this, the side-aisles had to be re-vaulted with pointed arches so as to carry the centre of gravity higher. A half vault was thrown over the gallery as shown in Fig. 1, on the left side of the Woodcut No. 614, and the whole upper structure considerably strengthened. When all this



615

Diagram of Vaulting.

was done they ventured to carry out what was practically, as will be seen from the plan (Woodcut No. 612), and elevation (Woodcut No. 616), a quadripartite vault with an intermediate insertion, which insertion was, however, neither quite a rib, nor quite a compartment of a vault, but something between the two; and in spite of all the ingenuity bestowed upon it in Germany, France, and England, in the 11th and beginning of the 12th centuries, it never produced an entirely satisfactory effect, until at last the pointed arch came to the rescue. It is easy to see from the diagram (Woodcut No. 615) how the introduction of the pointed arch obviated the difficulty. In the first place, supposing the great vault to remain circular, two segments of the same circle, A B, A C, carry the intersecting vault nearly to the height of the transverse one, or it could as easily be carried to the same height as at D. 616.

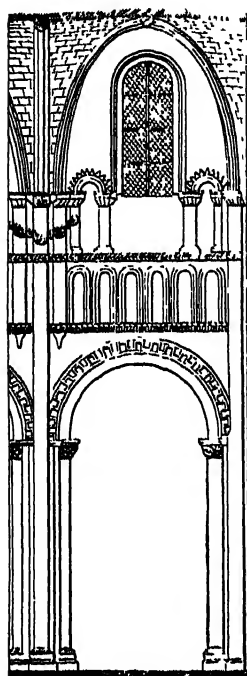


Elevation of Compartment of Nave of St. Stephen, Caen. (From Pugin.)

When both were pointed, as at E and F, it was easy to make their relative heights anything the architect chose, without either forcing or introducing any disagreeable

curves By this means the compartments of the vaults of the central nave were made the same width as those of the side-aisles, whatever their span might be, and every compartment or bay was a complete design in itself, without reference to those next to it on either side.

The arrangement in elevation of the internal compartments of the nave of this church will be understood from Woodcut No. 616, where it will be seen that the aisles are low, and above them runs a great gallery, a feature common in Italy, but rare in Germany. Its introduction may have arisen either from a desire for increased accommodation, or merely to obtain height, as it is evident that an arch the



617. Compartment, Abbaye-aux-Dames, Caen (From Pugin.)

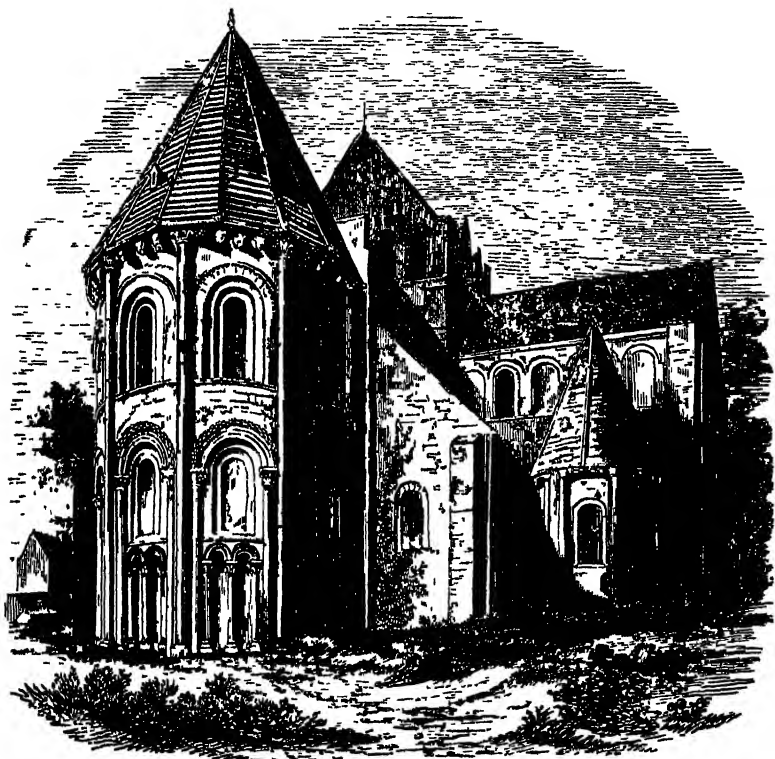
whole height of the side-aisles and gallery would be singularly narrow and awkward. This was one of those difficulties which were only got over by the introduction of the pointed arch; but which, whenever attempted in the circular style, led to very disagreeable and stilted effects. It may, however, have been suggested by the abutting galleries we find so frequently used in Southern churches. Be this as it may, the two storeys of the aisles fill up the height far more pleasingly than could be done by one, and bring an abutment up to the very springing of the main vault of the nave.

The worst feature in this elevation (Woodcut No. 616) is the clerestory, where the difficulties of the vaulting introduced a lop-sided arrangement very destructive of true architectural effect, and only excusable here from the inherent difficulties of a first attempt.

During the twenty or thirty years that elapsed between the building of St. Stephen's church and that of the Abbaye-aux-Dames, immense progress seems to have been made towards the new style, as will be seen from the annexed elevation of one compartment of the nave of the latter. The great gallery is omitted, the side-aisles made higher, the piers lighter and more ornamental. The triforium is a mere passage under the upper windows, and so managed as not to intercept their light from any part of the church. Even the vaulting, though in some parts hexapartite, in others shows a great approach to the quadripartite vaulting of the subsequent age; this, however, is obtained by bringing down the main vault to the level of the side vault, and not by raising the side arches to the level of the central, as was afterwards done. The greatest change is in the richness and elegance of the details,

which show great progress towards the more ornamental style that soon afterwards came into use.

The parochial church of St Nicolas at Caen is naturally plainer than either of these royal abbeys. It shows considerable progress in construction, and deserves far more attention than it has hitherto met with. It is the only church, so far as I know, in Normandy, that retains the original external covering of its apse. This consists, as shown in the Woodcut (No 618), of a high pyramidal roof of stone,



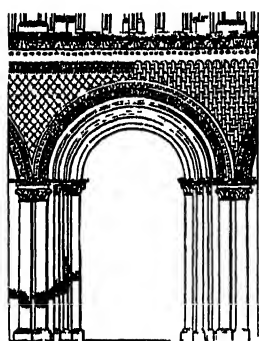
618.

East End of St Nicolas, Caen. (From Dawson Turner's 'Normandy'.)

following to the eastward the polygonal form of the apse, and extending one bay towards the west. From an examination of the central tower, it is clear that this was not the original pitch of the church roof, which was nearly as low in all Norman churches as in those of Auvergne. In this instance the roof over the apse was a sort of semi-spire placed over an altar, to mark externally the importance of the portion of the church beneath it. In appearance it is identical with the polygonal cones at Loches, before mentioned. At Bourges, and elsewhere in France, similar cones are found over chapels and altars; but in most instances they have been removed, probably from some

defect in construction, or from then not harmonising with the wooden roofs of the rest of the church. They were in fact the originals of the spires which afterwards became so much in vogue, and as such their history would be interesting, if properly inquired into.

The cathedral of Bayeux, as now standing, is considerably more modern than either of these; no part now remains of the church of Odo, the brother of the Conqueror, except the lower portion of the western towers, and a crypt which is still older. The pier arches of the nave belong to the first half of the 12th century, the rest of the church to the rebuilding, which was commenced 1157, after the town had been burnt, and the cathedral considerably damaged, by the soldiers of Henry I. At this time the apse was removed to make way for a chevet, which is one of the most beautiful specimens of early pointed Gothic to be found in France, and far surpasses its rival in the Abbaye-aux-Hommes at Caen. In the church at Caen, the alteration



619. Lower Compartment, Nave, Bayeux. (From Pugin.)

was probably made to receive the tomb of the Conqueror, when that veneration began to be shown to his remains which was denied to himself when dying. Here, however, the same motive does not seem to have existed, and it is more probable that the extension was caused by the immense increase of the priesthood in the course of the 11th and 12th centuries, requiring a larger choir for their accommodation. We know from the disposition of the choir, that the nave originally had a great gallery over the side-aisles, and consequently a low clerestory. But before it was rebuilt, in the end of the 12th or beginning of the 13th century, the mania for painted glass had seized on the French architects, and all architectural propriety was sacrificed to this mode of decoration. In the present instance we cannot help contrasting the solid grandeur of the basement with the lean and attenuated forms of the superstructure, although this attenuation was in other examples carried to a still greater extent afterwards.

The diapering of the spandrels of the lower arches (Woodcut No. 619) is another feature worthy of remark, as illustrating the history of the style. Before painted glass was introduced, the walls of all churches in Northern Europe were covered with fresco or distemper paintings, as was then, and is to the present day, the case in Italy. But when coloured windows came into use, the comparative dulness of the former mode of decoration was immediately felt, and the use of colour confined to the more brilliant transparent material. It was necessary to find a substitute for the wall painting, and the most obvious expedient was that of carving on the stone the same patterns which it had been

customary to paint on them. An attempt was made, indeed, to heighten the effect of this carving by inlaying the lines with coloured mastic or cement; but the process was soon found to be not only very expensive but very ineffective, and gave way afterwards to sculptured figures in traceried panels. These ornaments easily filled up the very small spaces of wall that were not occupied either by the windows, which were greatly enlarged, or by the constructive supports of the building. Now, however, that colour is gone both from the walls and the windows, this diapering gives a singularly rich and pleasing effect to the architecture of the lower storey, and, combined with the massiveness and varied richness of the piers themselves, renders this a nearly unique specimen of a Norman arcade, and one of the most beautiful that has come down to us.

These examples are, it is hoped, sufficient to make known the general characteristics of a style which is at the same time of great interest to the English reader from its proximity to our shores, and from its influence on our own, although it is comparatively so familiar as to require less illustration than many others. Besides the examples above described, many other specimens of Norman architecture might have been given, filling up the details of the series, from the rude simplicity of Jumèges to the elaborate richness of the nave of Bayeux, and showing a rapidity of progress and boldness in treating the subject hardly surpassed in the succeeding age; but still, with all its developments, it can only be considered as a first rude attempt to form a style of architecture which was superseded before its principles began to be understood, and lost before it had received any of those finishing touches which form the great element of beauty in all the more perfect styles.

■

CHAPTER VIII.

FRANKISH ARCHITECTURE.

CONTENTS

Historical notice—The pointed arch—Freemasonry—Medieval architects.

THE architectural history of the Central or Frankish province is widely different from that of any of those we have yet examined. At the end of the 5th century the whole of the North of France was overrun by Clovis and his Franks, and on his death in 511 his dominions were divided into four kingdoms, of which Metz, Paris, Soissons, and Orleans, were the capitals. If we take these cities as centres, and add their districts together, they correctly represent the limits of the architectural province we are now entering upon. With various fluctuations, sometimes one kingdom, sometimes two or even three being absorbed in one, they were at last united under Pepin in 718, only to make way for the accession of Charlemagne and his universal empire over the whole Gothic districts of Europe, with the exception of England and Spain.

With the Merovingian kings we have nothing to do ; they have not left one single building from which to judge of the state of the art during their ascendancy —(they must have been Aryans *par nature*) —nor can our history with propriety be said even to begin in France with Charlemagne. His accession marks the epoch towards which an archæologist may hope to trace back the incunabula of the style, but as yet no single building has been found in France which can with certainty be ascribed to his reign. The nave at Montier-en-Der, the Basse Œuvre at Beauvais, and other buildings, may approach his age in antiquity, but we must travel down to the time of Capet (987) ere we find anything that can be considered as the germ of what followed.

This may in a great measure be owing to the confusion and anarchy that followed on the death of Charlemagne ; and to the weakness of the kings, the disorganisation of the people, and the ravages of the Northmen and other barbarians, from which it resulted that no part of France was in a less satisfactory position for the cultivation of the arts of peace than that which might have been expected to take the lead in

all. Thus, while the very plunder of the Central province enabled the Normans to erect and sustain a powerful state on the one side, and to adorn it with monuments which still excite our admiration, and the organisation of the monks of Burgundy on the other hand promoted the cultivation of arts of peace to an extent hardly known before their time in Northern Europe, Central France remained incapable even of self-defence, and still more so of raising monuments of permanent splendour

There must no doubt have been buildings in the Romanesque style in this province, but they were few and insignificant compared with those we have been describing, either in the South or in Normandy and Burgundy. Even in Paris the great church of St. Germain des Prés, the burial-place of the earlier kings, and apparently the most splendid edifice of the capital, was not more than 50 ft. in width by 200 in length before the rebuilding of its chevet in the pointed style, and it possessed no remarkable features of architectural beauty. St. Geneviève was even smaller and less magnificent; and if there was a cathedral, it was so insignificant that it has not been mentioned by any contemporary historian.

Several of the provincial capitals probably possessed cathedrals of some extent and magnificence. All these, however, were found so unsuited to the splendid tastes of the 12th and 13th centuries, that they were pulled down and rebuilt on a more extended scale; and it is only from little fragmentary portions of village churches that we learn that the round Gothic style was really at one time prevalent in the province, and possessed features according to its locality resembling more or less those of the neighbouring styles. So scanty indeed are such traces, that it is hardly worth while to recapitulate here the few observations that might occur on the round Gothic styles as found within the limits of the province.¹

This state of affairs continued down to the reign of Louis le Gros, 1108–1136, under whom the monarchy of France began to revive. This monarch, by his activity and intelligence, restored to a considerable extent the authority of the central power over the then independent vassals of the crown. This was carried still further under the reign of his successor, Louis le Jeune (1137–1179), though perhaps more was owing to the abilities of the Abbé Suger than to either of these monarchs. He seems to have been one of those great men who sometimes appear at a crisis in the history of their country, to guide and restore what otherwise might be left to blind chance and to perish

¹ The Church of St Rémi at Rheims character. It nevertheless retains the outlines of a vast and noble basilica of the early part of the 11th century, presenting considerable points of similarity to those of Burgundy

for want of a master mind. Under Philip Augustus the country advanced with giant strides, till under St. Louis it arrived at the summit of its power. For a century after this it sustained itself by the impulse thus given to it, and with scarcely an external sign of that weakness which betrayed itself in the rapidity with which the whole power of the nation crumbled to pieces under the first rude shock sustained in 1346 at Crecy from the hand of Edward III.

More than a century of anarchy and confusion followed this great event, and perhaps the period of the English wars may be considered as the most disastrous of the whole history of France, as the previous two centuries had been the most brilliant. When she delivered herself from these troubles, she was no longer the same. The spirit of the Middle Ages had passed away. The simple faith and giant energy of the reigns of Philip Augustus and St. Louis were not to be found under Louis IX. and his inglorious successors. With the accession of Francis I. a new state of affairs succeeded, to the total obliteration of all that had gone before, at least in art.

The improvement of architecture, keeping pace exactly with the improved political condition of the land, began with Louis le Gros, and continued till the reign of Philip of Valois (1108 to 1328). It was during the two centuries comprised within this period that pointed architecture was invented, which became the style, not only of France, but of all Europe during the Middle Ages; and is, *par excellence*, the Gothic style of Europe. The cause of this pre-eminence is to be found partly in the accident of the superior power of the nation to which the style belonged at this critical period, but more to the artistic feelings of their race; and also because the style was found the most fitted to carry out certain religious forms and decorative principles which were prevalent at the time, and which will be noted as we proceed.

The style, therefore, with which this chapter is concerned is that which commenced with the building of the Abbey of St. Denis, by Suger, A.D. 1144,¹ which culminated with the building of the Sainte Chapelle of Paris by St. Louis, 1244, and which received its greatest amount of finish at the completion of the choir of St. Ouen at Rouen by Mark d'Argent, in 1339. There are pointed arches to be found in the Central province, as well as all over France, before the time of the

¹ It is in the vaulting of the choir aisle of St. Denis that we find the earliest example of the new value of the pointed arch: rib-four independent ribs rise to the centre of the aisle, it being no longer necessary to place the opposite ribs in the same plane. M. Louis Goussier in his 'L'Art Gothique,' however, points out one or two earlier examples such as the churches of Morienval and Bellefontaine, both in the Oise Department; the latter only is dated—1125; but no illustrations of the vault are given. The former is so crude in its design that it is probably earlier, and it is in fact evident from the perfection shown in St. Denis that many previous experiments must have been made, examples of which it would be interesting to trace.—Ed

Abbé Suger ; but they are only the experiments of masons struggling with a constructive difficulty, and the pointed style continued to be practised for more than a century and a half after the completion of the choir of St. Ouen, but no longer in the pure and vigorous style of the earlier period. Subsequent to this it resembles more the efforts of a national style to accommodate itself to new tastes and new feelings, and to maintain itself by ill-suited arrangements against the innovation of a foreign style which was to supersede it, and the influence of which was felt long before its definite appearance.

The sources from which the pointed arch was taken have been more than once alluded to in the preceding pages. It is a subject on which a great deal more has been said and written than was at all called for by the real importance of the question. Scarcely anything was done in pointed architecture which had not already been done in the round-arch styles. Certainly there is nothing which could not have been done, at least nearly as well, and many things much better, by adhering to the complete instead of to the broken arch. The coupling and compounding of piers had already been carried to great perfection, and the assignment of a separate function to each staff was already a fixed principle. Vaulting too was nearly perfect, only that the main vaults were either hexapartite or six-celled, instead of quadripartite, as they afterwards became ; an improvement certainly, but not one of much importance. Ribbed vaulting was the greatest improvement which the Mediæval architects made on the Roman vaults, giving not only additional strength of construction, but an apparent vigour and expression to the vault, which is one of the greatest beauties of the style. This system was in frequent use before the employment of the pointed arch. The different and successive planes of decoration were also one of the Mediæval inventions which was carried to greater perfection in the round Gothic styles than in the pointed. Indeed, it is a fact, that except in window tracery, and perhaps in pinnacles and flying buttresses, there is not a single important feature in the pointed style that was not invented and in general use before its introduction. Even of windows, which are the important features of the new style, by far the finest are the circular or wheel windows, which have nothing pointed about them, and which always fit awkwardly into the pointed compartments in which they are placed. In smaller windows, too, by far the most beautiful and constructively appropriate tracery is that where circles are introduced into the heads of the pointed windows. But, after hundreds of experiments and expedients had been tried, the difficulty of fitting these circles into spherical triangles remained, and the unpleasant form to which their disagreement inevitably gave rise, proved ultimately so intolerable, that the architects were forced to abandon the beautiful constructive geometric tracery for the flowing or flamboyant form ; and this last was so ill adapted to stone con-

struction, that the method was abandoned altogether. These and many other difficulties would have been avoided, had the architects adhered to the form of the unbroken arch; but on the other hand it must be confessed that the pointed forms gave a facility of arrangement which was an irresistible inducement for its adoption, and especially to the French, who always affected height as the principal element of architectural effect, it afforded an easy means for the attainment of this object. Its greatest advantage was the ease with which any required width could be combined with any required height. With this power of adaptation the architect was at liberty to indulge in all the wildness of the most exuberant fancy, hardly controlled by any constructive necessities of the work he was carrying out. Whether this was really an advantage or not, is not quite clear. A tighter rein on the fancy of the designer would certainly have produced a purer and severer style, though we might have been deprived of some of those picturesque effects which charm so much in Gothic cathedrals, especially when their abruptness is softened by time and hallowed by associations. We must, however, in judging of the style, be careful to guard ourselves against fettering our judgment by such associations. There is nothing in all this that might not have been as easily applied to round as to pointed arches, and indeed it would certainly have been so applied, had any of the round-arched styles arrived at maturity.

Far more important than the introduction of the pointed arch was the invention of painted glass, which is really the important formative principle of Gothic architecture; so much so, that there would be more meaning in the name, if it were called the "*painted-glass style*," instead of the pointed-arch style.¹

In all the earlier attempts at a pointed style, which have been alluded to in the preceding pages, the pointed arch was confined to the vaults, pier arches, and merely constructive parts, while the decorative parts, especially the windows and doorways, were still round-headed. The windows were small, and at considerable distances, a very small surface of openings filled with plain white glass being sufficient to admit all the light that was required for the purposes of the building, while more would have destroyed the effect by that garish white light that is now so offensive in most of our great cathedrals. As soon, however, as painted glass was introduced, the state of affairs was altered: the windows were first enlarged to such an extent as was thought possible without endangering the safety of the painted glass, with the imperfect means of supporting it then known.² All circular plans were abandoned, and polygonal apses and chapels of the chevet introduced; and lastly, the windows being made to occupy as nearly

¹ See Appendix, note 8.

² These generally consisted of strong iron bars, wrought into patterns in ac-

cordance with the design painted on the glass.

as was possible the whole of each face of these polygonal apses, the lines of the upper part of the window came internally into such close contact with the lines of the vault, that it was almost impossible to avoid making them correspond the one with the other. Thus the windows took the pointed form already adopted for constructive reasons in the vaults. This became even more necessary when the fashion was introduced of grouping two or three simple windows together so as to form one; and when those portions of wall which separated these windows one from the other had become attenuated into mullions, and the upper part into tracery, until in fact the entire wall was taken up by this new species of decoration,

So far as internal architecture is concerned, the invention of painted glass was perhaps the most beautiful ever made. The painted slabs of the Assyrian palaces are comparatively poor attempts at the same effect. The hieroglyphics of the Egyptians were far less splendid and complete, nor can the painted temples of the Greeks, nor the mosaics and frescoes of the Italian churches, be compared with the brilliant effect and party-coloured glories of the windows of a perfect Gothic cathedral, where the whole history of the Bible was written in the hues of the rainbow by the earnest hand of faith.

Unfortunately no cathedral retains its painted glass in anything like such completeness, and so little is the original intention of the architects understood, that we are content to admire the plain surface of white glass, and to consider this as the appropriate filling of traceried windows, just as our fathers thought that whitewash was not only the purest, but the best mode of decorating a Gothic interior. What is worse, modern architects, when building Gothic churches, fill their sides with large openings of this glass, not reflecting that a gallery of picture-frames without the pictures is after all a sorry exhibition; but so completely have we lost all real feeling for the art, that its absurdity does not strike us now.

It will, however, be impossible to understand what follows, unless we bear in mind that all windows in all churches erected after the middle of the 12th century were at least intended to be filled with painted glass, and that the principal and guiding motive in all the changes subsequently introduced into the architecture of the age was to obtain the greatest possible space and the best-arranged localities for its display.

FREEMASONRY.

The institution of freemasonry is another matter on which, like the invention of the pointed arch, a great deal more has been said than the real importance of the subject at all deserves. Still this subject has been considered so all-important, that it is impossible to pass it

over here without some reference, if only to explain why so little notice will be taken of its influence, or of the important names which are connected with it

Before the middle of the 12th and beginning of the 13th century, it is generally admitted that the corporation of freemasons was not sufficiently organised to have had much influence on art. At that time it is supposed to have assumed more importance, and to have been the principal guiding cause in the great change that then took place in architecture. Those who adopt this view, forget that at that time all trades and professions were organised in the same manner, and that the guild of masons differed in no essential particulars from those of the shoemakers or hatters, the tailors or vintners—all had their masters and past-masters, their wardens, and other officers, and were recruited from a body of apprentices, who were forced to undergo years of probationary servitude before they were admitted to practise their arts.

But though their organisation was the same, the nature of their pursuits forced one very essential distinction upon the masons, for inasmuch as all the usual trades were local, and the exercise of them confined to the locality where the tradesmen resided, the builders were, on the contrary, forced to go wherever any great work was to be executed.

Thus the shoemakers, tailors, bakers, and others, lived among their customers, and just in such numbers as were required to supply their usual recurring wants. It is true the apprentices travelled to learn their profession and see the world before settling down, but after that each returned to his native town or village, and then established himself among his friends or relatives, where he was known by all, and where he at once took his station without further trouble.

With the mason it was different: his work never came to him, nor could it be carried on in his own house, he was always forced to go to his work; and when any great church or building was to be erected in any town, which was beyond the strength of the ordinary tradesmen of the place to undertake, masons were sent for, and flocked from all the neighbouring towns and districts to obtain employment.

At a time when writing was almost unknown among the laity, and not one mason in a thousand could either read or write, it is evidently essential that some expedient should be hit upon by which a mason travelling to his work might claim the assistance and hospitality of his brother masons on the road, and by means of which he might take his rank at once, on reaching the lodge, without going through tedious examinations or giving practical proof of his skill. For this purpose a set of secret signs was invented, which enabled all masons to recognise one another as such, and by which also each man could make

known his grade to those of similar rank, without further trouble than a manual sign, or the utterance of some recognised pass-word. Other trades had something of the same sort, but it never was necessary for them to carry it either to the same extent nor to practise it so often as the masons, they being for the most part resident in the same place and knowing each other personally. The masons, who thus from circumstances became more completely organised than other trades, were men skilled in the arts of hewing and setting stones, acquainted with all recent inventions and improvements connected with their profession, and capable of carrying out any work that might be entrusted to them, though they never seem to have attempted to exercise their calling except under the guidance of some superior personage, either a bishop or abbot, or an accomplished layman. In the time of which we are speaking, which was the great age of Gothic art, there is no instance of a mason of any grade being called upon to furnish the designs as well as to execute the work.

It may appear strange to us in the 19th century, among whom the great majority really do not know what true art means, that six centuries ago eminent men, not specially educated to the profession of architecture, and qualified only by talent and good taste, should have been capable of such vast and excellent designs, but a little reflection will show how easy it is to design when art is in the right path.

If for instance we take a cathedral, any one of a series—let us say of Paris, when completed, or nearly so, it was easy to see that though an improvement on those which preceded it, there were many things in its construction or design which might have been better. The side-aisles were too low, the gallery too large, the clerestory not sufficiently spacious for the display of the painted glass, and so on. Let us next suppose the Bishop of Amiens at that period determined on the erection of his cathedral. It was easy for him or his master-mason to make these criticisms, and also to perceive how these mistakes might be avoided; they could easily see where width might be spared, especially in the nave, and where a little additional height and a little additional length would improve the effect of the whole. During the progress of the Parisian works also some capitals had been designed, or some new form of piers adopted, which were improvements on preceding examples, and more confidence and skill would also have been derived from the experience gained in the construction of arches and vaults. All these of course would be adopted in the new cathedral; and without making drawings, guided only by general directions as to the plan and dimensions, the masons might proceed with the work, and, introducing all the new improvements as it progressed, they would inevitably produce a better result than any that preceded it, without any especial skill on the part either of the master-mason or his employer.

If a third cathedral were to be built after this, it would of course

contain all the improvements made during the progress of the second, and all the corrections which its results suggested, and thus, while the art was really progressive, it required neither great individual skill nor particular aptitude to build such edifices as we find.

In fine arts we have no illustration of this in modern times, but all our useful arts advance on the same principles, and lead consequently to the same results. In ship-building, for instance, as mentioned in the Introduction (page 45), if we take a series of ships, from those in which Edward III. and his bold warriors crossed the channel to the great line-of-battle ships now lying at anchor in our harbours, we find a course of steady and uninterrupted improvement from first to last. Some new method is tried, if it is found to succeed, it is retained, if it fails, it is dropped. Thus the general tendency constantly leads to progress and improvement. And, to continue the comparison a little further, this progress in the art is not attributable to one or more eminent naval architects. Great and important discoveries have no doubt been made by individuals, but in these cases we may generally assume that, the state of science being ripe for such advances, had the discovery in question not been made by one man, it soon would have occurred to some other.

The fact is, that in a useful art like that of ship-building, or in an art combining use and beauty like that of architecture—that is, when the latter is a real, living, national art—the progress made is owing, not to the commanding abilities of particular men, but to the united influence of the whole public. An intelligent sailor who discusses the good and bad qualities of a ship, does his part towards the advancement of the art of ship-building. So in architecture, the merit of any one admirable building, or of a high state of national art, is not due to one or to a few master minds, but to the aggregation of experience, the mass of intellectual exertion, which alone can achieve any practically great result. Whenever we see any work of man truly worthy of admiration, we may be quite sure that the credit of it is not due to an individual, but to thousands working together through a long series of years.

The pointed Gothic architecture of Germany furnishes a negative illustration of the view which we have taken of the conditions necessary for great architectural excellence. There the style was not native, but introduced from France. French masons were employed, who executed their work with the utmost precision, and with a perfection of masonic skill scarcely to be found in France itself. But in all the higher elements of beauty, the German pointed Gothic cathedrals are immeasurably inferior to the French. They are no longer the expression of the devotional feelings of the clergy and people, and are totally devoid of the highest order of architectural beauty.

The truth of the matter is, that the very pre-eminence of the great

masonic lodges of Germany in the 14th century destroyed the art. When freemasonry became so powerful as to usurp to itself the designing as well as the execution of churches and other buildings, there was an end of true art, though accompanied by the production of some of the most wonderful specimens of stone-cutting and of constructive skill that were ever produced. This, however, is "building," not architecture, and though it may excite the admiration of the vulgar, it never will touch the feelings of the true artist or the man of taste.

This decline of true art had nowhere shown itself during the 13th century, with which we are concerned at present. Then architecture was truly progressive: every man and every class in the country lent their aid, each in his own department, and all worked together to produce those wonderful buildings which still excite our admiration. The masons performed their part, and it was an important one; but neither to them nor to their employers, such as the Abbé Suger, Maurice de Sully, Robert de Lusarches, or Fulbert of Chartres, is the whole merit to be ascribed, but to all classes of the French nation, carrying on steadily a combined movement towards a well-defined end.

In the following pages, therefore, it will not be necessary to recur to the freemasons nor their masters—at least not more than incidentally—till we come to Germany. Nor will it be necessary to attempt to define who was the architect of any particular building. The names usually fixed upon by antiquaries after so much search are merely those of the master-masons or foremen of the works, who had nothing whatever to do with the main designs of the buildings. The simple fact that all the churches of any particular age are so like to one another, both in plan and detail, and so nearly equal in merit, is alone sufficient to prove how little the individual had to do with their design, and how much was due to the age and the progress the style had achieved at that time. This, too, has always proved to be the case, not only in Europe, but in every corner of the world, and in every age when architecture has been a true and living art.

CHAPTER IX.

FRENCH GOTHIC CATHEDRALS.

CONTENTS.

Paris—Chartres—Rheims—Amiens—Other Cathedrals—Later Style—
St Ouen's, Rouen

THE great difficulty in attempting to describe the architecture of France during the glorious period of the 13th century is really the *embarras de richesse*. There are even now some thirty or forty cathedrals of the first class in France, all owing their magnificence to this great age. Some of these, it is true, were commenced even early in the 12th, and many were not completed till after the 14th century; but all their principal features, as well as all their more important beauties, belong to the 13th century, which, as a building epoch, is perhaps the most brilliant in the whole history of architecture. Not even the great Pharaonic era in Egypt, the age of Pericles in Greece, nor the great period of the Roman Empire, will bear comparison with the 13th century in Europe, whether we look to the extent of the buildings executed, their wonderful variety and constructive elegance, the daring imagination that conceived them, or the power of poetry and of lofty religious feelings that is expressed in every feature and in every part of them.

During the previous age almost all the greater ecclesiastical buildings were abbeys, or belonged exclusively to monastic establishments—were in fact the sole property, and built only for the use, of the clergy, though the laity, it is true, were admitted to them, but only on sufferance. They had no right to be there, and took no part in the ceremonies performed. In the 13th century, however, almost all the great buildings were cathedrals, in the erection of which the laity bore the greater part of the expense, and shared, in at least an equal degree, in their property and purposes. In a subsequent age the parochial system went far to supersede even the cathedral, the people's church taking almost entirely the place of the priest's church, a step which was subsequently carried to its utmost length by the Reformation. Our present subject requires us to fix our attention on that stage of this great movement which gave rise to the building of the principal cathedrals throughout Europe from the 12th to the 15th century.

The transition from the Romanesque to the true pointed Gothic style in the centre of France took place with the revival of the national power under the guidance of the great Abbé Suger, about the year 1144. In England it hardly appeared till the rebuilding of Canterbury Cathedral, under the guidance of a French architect, A.D. 1175; and in Germany it is not found till, at all events, the beginning of the 13th century, and can hardly be said to have taken firm root in that country till a century at least after it had been fairly established in France.

The development of particular features will be pointed out as we proceed; but no attempt will be made to arrange the cathedrals and great buildings in chronological order. Such an attempt would merely lead to confusion, as most of them took a century at least to erect—many of them two.

In France, as in England, there is no one great typical building to which we can refer as a standard of perfection—no Hypostyle Hall or Parthenon which combines in itself all the excellences of the style adopted; and we are forced therefore to cull from a number of examples materials for the composition, even in imagination, of a perfect whole. Germany has in this respect been more fortunate, possessing in Cologne Cathedral an edifice combining all the beauties ever attempted to be produced in pointed Gothic in that country. But even this is only an imitation of French cathedrals, erected by persons who admired and understood the details of the style, but were incapable of appreciating its higher principles. The great cathedrals of Rheims, Chartres, and Amiens, are all early examples of the style, and as they were erected nearly simultaneously, none of their architects were able to profit by the experience obtained in the others; they are consequently all more or less experiments in a new and untried style. The principal parts of the church of St. Ouen at Rouen, on the contrary, are of somewhat too late a date; and beautiful though it is, masonic perfection was then coming to be more considered than the expression either of poetry or of power.

Still in Rheims Cathedral we have a building possessing so many of the perfections and characteristic beauties of the art, that it may almost serve as a type of the earlier style, as St. Ouen may of the later; and though we may regret the absence of the intermediate steps, except in such fragments as the Sainte Chapelle at Paris, still between them we may obtain a tolerably clear idea of the form to which French art aspired during its most flourishing age.

To avoid as far as may be possible the tediousness of repetition necessary if the attempt were made to describe each building separately, and at the same time not to fall into the confusion that must result from grouping the whole together, the most expedient mode will perhaps be, to describe first the four great typical cathedrals of

Paris, Chartres, Rheims, and Amiens, and then to point out briefly the principal resemblances and differences between these and the other cathedrals of France.

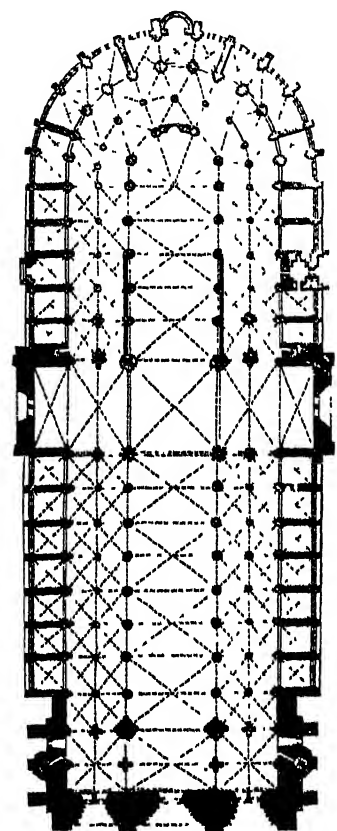
Of these four, that of Paris is the oldest; the foundation-stone having been laid 1163, and the work carried on with such activity by the bishop, Maurice de Sully, that the high altar was dedicated 1182, the interior completed 1208, and the west front finished about the year 1214.

The history of the cathedral of Chartres (Woodcut No. 623) is not so easily traced. An important church was erected there by Bishop Fulbert in the beginning of the 11th century, of which building scarcely anything now remains but the piers of the western doors and the vast crypt. In 1115, according to Mr. Street,¹ a west front was commenced and in 1194 the whole church was destroyed by fire. The new cathedral was at once commenced, but upon the old foundations. As the old crypt sustained no damage and it extended the whole length of the church, the architect was obliged to build on the old lines, and thus we have, as Mr. Street points out, a variation in the chapels of the chevet which is extremely original and unlike any other example. The rebuilding was not completed till the year 1260.

The cathedral of Rheims (Woodcut No. 624) was commenced in the year 1211, immediately after a fire which consumed the preceding building, and under the auspices of Archbishop Alberic de Humbert,—Robert de Coucy acting

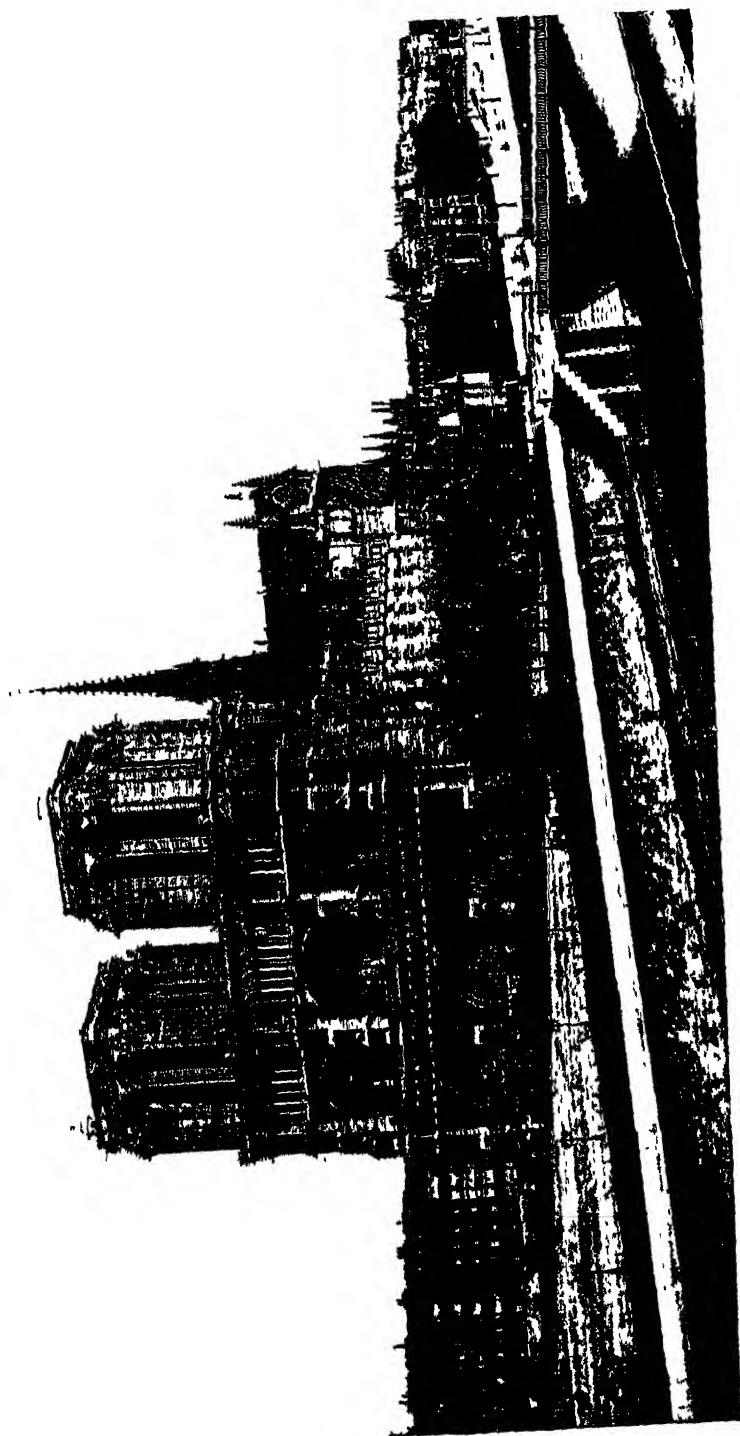
as trustee on the part of the laity. It was so far completed in all essential parts as to be dedicated in 1241.

Amiens Cathedral (Woodcut No. 625) was commenced in 1220, and completed in 1257; but being partially destroyed by fire the year afterwards, the clerestory and all the upper parts of the church were rebuilt. The whole appears to have been completed, nearly as we now



620. Plan of Cathedral of Notre Dame, Paris (From Chappuy, 'Moyen-Age Monumental.')
Scale 100 ft. to 1 in.

¹ Royal Academy lectures, delivered in 1881, by G. E. Street, R.A., Professor of Architecture.

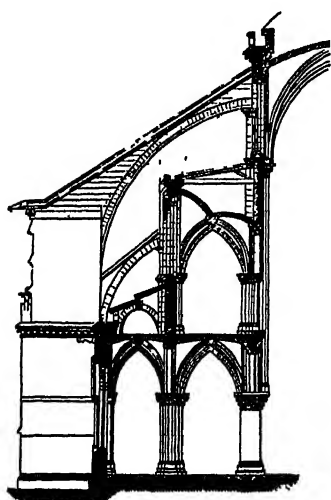


find it, about the year 1272. From this period to the building of the choir of St. Ouen, at Rouen, 1318-1339, there is a remarkable denciency of great examples in France. The intermediate space is very imperfectly filled by the examples of St Urban at Troyes, St Benigne at Dijon, and a few others. These are just sufficient to show how exquisite the style then was, and what we have lost by almost all the cathedrals of France having been commenced simultaneously, and none being left in which the experience of their predecessors could be made available.

Though the plans of these cathedrals differ to some extent, their dimensions are very nearly the same, that at—

Paris, covering about . . .	64,108 feet
Chartres.	68,260 "
Rheims	67,475 "
Amiens	71,208 "

These dimensions, though inferior to those of Cologne, Milan, Seville, and some other exceptional buildings, are still as large as those of any erected in the Middle Ages.



621. Section of Side Aisles, Cathedral of Paris (From Gailhabaud, 'Architecture.')
Scale 50 ft. to 1 in.

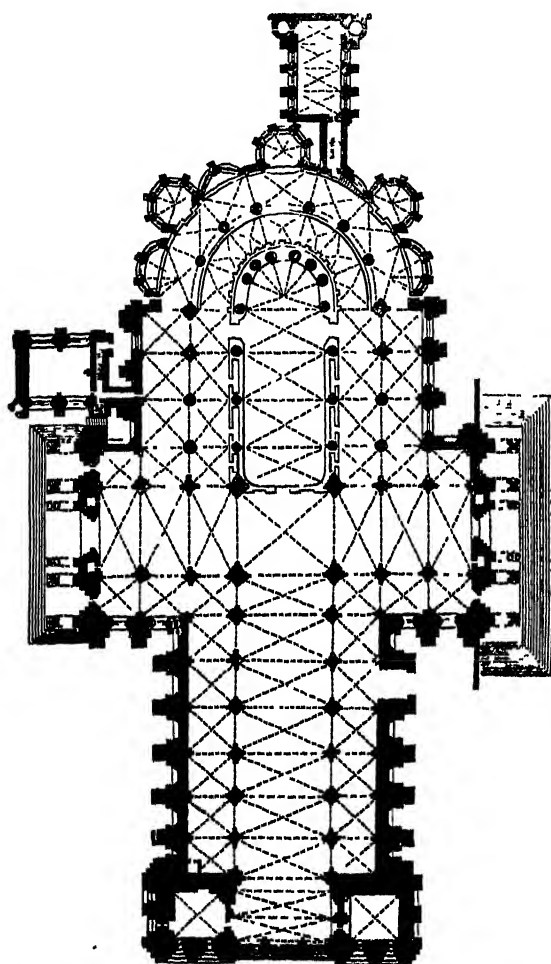


Original Design. Improved Design.
622. External Elevation, Cathedral of Paris. (From Gailhabaud.)

The cathedral of Paris was designed at a time when the architects had not obtained that confidence in their own skill which made them afterwards complete masters of the constructive difficulties of the design. As shown in the plan (Woodcut No. 620), the points of support are far more numerous and are placed nearer to one another, than is usually the case; and as may be seen from the section, instead of two tall storeys, the height is divided into three, and made up, if I

may so express it, of a series of cells built over and beside each, so as to obtain immense strength with a slight expenditure of materials.

It must at the same time be confessed that this result was obtained with a considerable sacrifice of grandeur and simplicity of effect. Even



623. Plan of Chartres Cathedral. (From Chapuy.) Scale 100 ft. to 1 in.

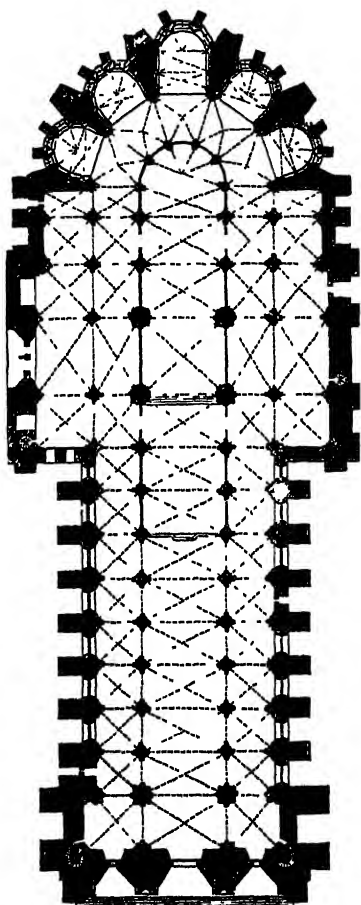
before the building was completed, the architects seem to have become aware of these defects; and as is shown in the woodcut (No. 622), the simple undivided windows of the clerestory were cut down so as to give them the greatest possible height, and the roof of the upper gallery made flat to admit of this. Subsequently larger windows were introduced between the buttresses, with a view to obtaining fewer and larger parts, and also of course to admit of larger surfaces for painted glass. With all these improvements the cathedral has not internally the same grandeur as the other three, though

externally there is a very noble simplicity of outline and appearance of solidity in the whole design. Internally it still retains, as may be seen from the plan, the hexapartite arrangement in its vaults over the central aisle, and the quadripartite in the side-aisles only. This causes the central vault to overpower those on each side, and makes not only the whole church, but all parts, look much smaller than would have been the case had the roof been cut into smaller divisions, as was always subsequently the case.



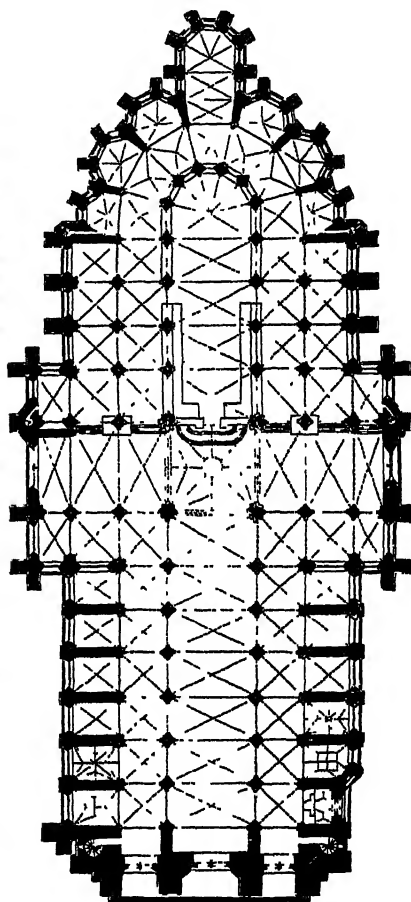
INTERIOR OF NOTRE DAME CATHEDRAL, PARIS

At Chartres most of these defects were avoided, there is there a simplicity of design and a grandeur of conception seldom surpassed. The great defect of proportion in that building arises from the circumstance that the architect included the three aisles of the old church in the central aisle of the present one. At that time the architects had not attained that daring perfection of execution which afterwards



624. Plan of Rheims Cathedral.
Scale 100 ft. to 1 in.

(From Chapuy.)

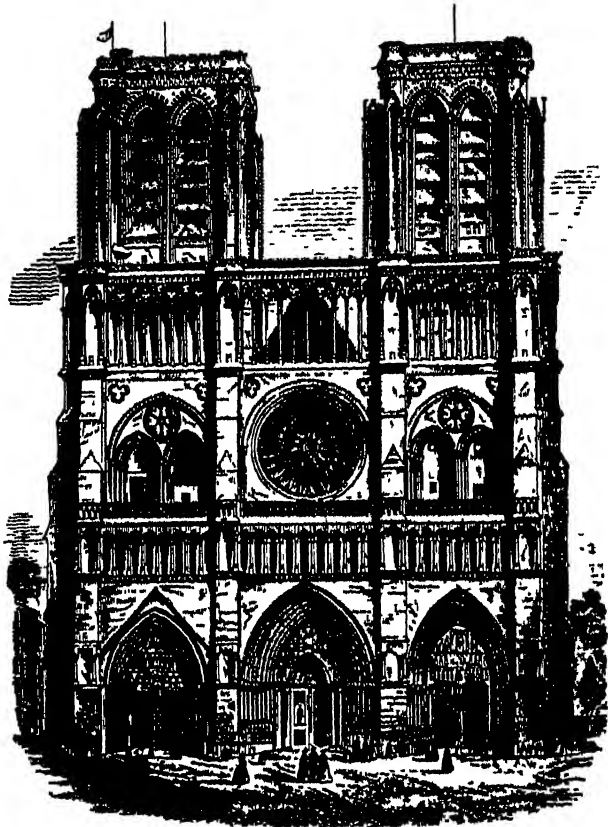


625. Plan of Amiens Cathedral.
Scale 100 ft. to 1 in.

enabled them to carry the vaults to so astonishing a height. At Chartres the proportion of width to height is nearly as 1 to 2, the breadth of the central nave being nearly 50 ft., and the height only 106. With the great length of such buildings found in England such proportions were tolerable, but in the shorter French cathedrals it gives an appearance of depression which is far from being pleasing; and as the painted glass has been almost entirely removed from the

nave, a cold glare now pervades the whole, which renders it extremely difficult to form an opinion of the original effect.

Most of those defects were avoided by the builders of the cathedral at Rheims, and nothing can exceed the simple beauty and perfection of the arrangement of the plan, as well as of the general harmony of all the parts. The proportion, both in width and height, of the side-aisles to the central nave, and the absence of side chapels and of any

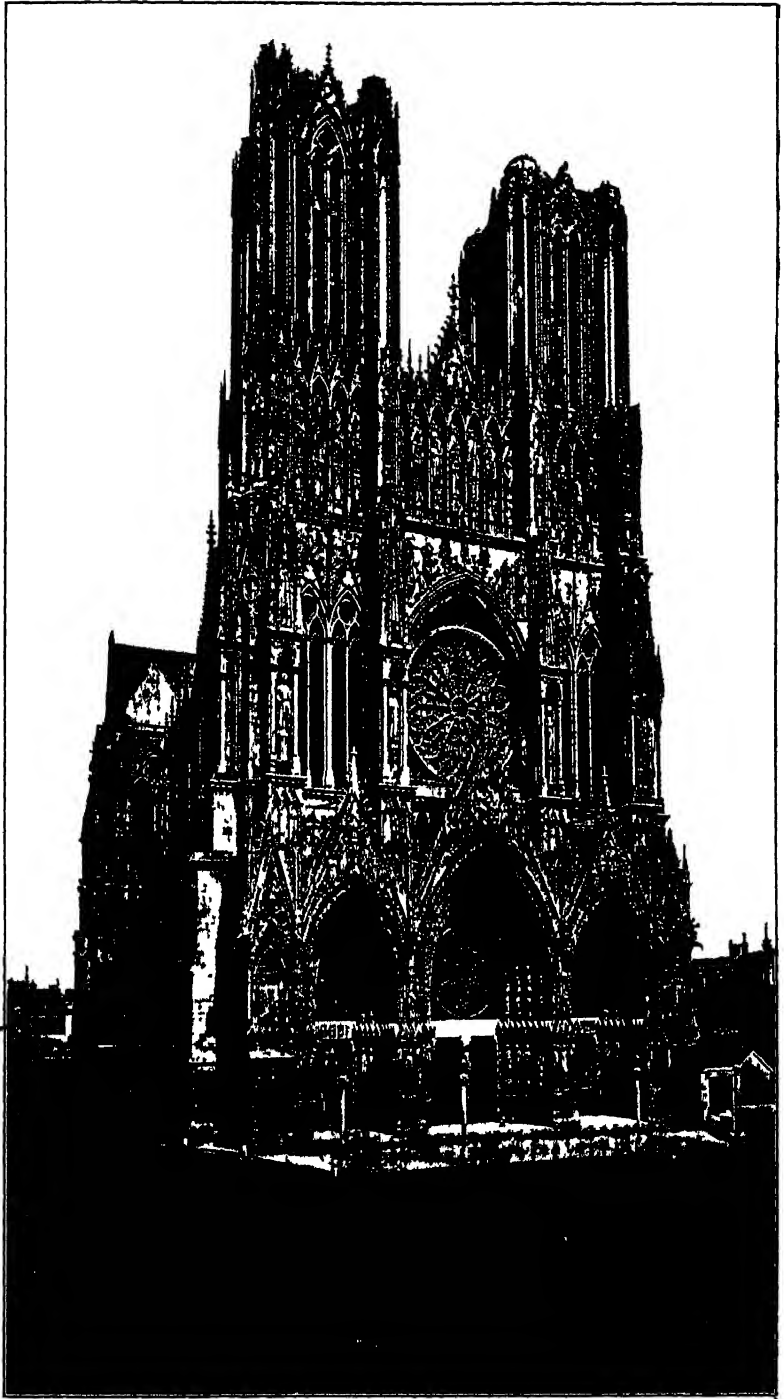


626.

View of the Façade of the Cathedral at Paris. (From Chapuy.)

subsequent additions, render the nave one of the most perfect in France. The mode in which the church expands as you approach the choir, and the general arrangement of the eastern part,¹ as shown in the plan (Woodcut No. 624), are equally excellent, and are surpassed by no building of the Middle Ages. The piers are perhaps a little heavy, and

¹ It should be noted that the last bay of the nave and the first bay of the choir are wider than any of the other bays, and this gives an increased dimension to the aisles of north and south transepts, which contributes in no slight degree to the effect of vastness given to this part of the church.—ED.



CATHEDRAL OF RHEIMS

their capitals want simplicity, the triforium is if anything too plain, and at the present day the effect of light in the church is in one respect reversed, inasmuch as the clerestory retains its painted glass, which in the side-aisles has been almost totally destroyed, making the building appear as though lighted from below—an arrangement highly destructive of architectural beauty. Notwithstanding all this, it far surpasses those buildings which preceded it, and is only equalled by Amiens and those completed afterwards. Their superiority however arose from the introduction just at the time of their erection of complicated window-tracery, enabling the builders to dispense almost wholly with solid walls, and to make their clerestories at least one blaze of gorgeous colouring. By the improvement in tracery then introduced, they were able to dispose the glass in the most beautiful forms, and framed in stone, so as to render it, notwithstanding its extent, still an integral part of the whole building. In this respect the great height of the clerestory at Amiens, and its exceeding lightness, give it an immense advantage over the preceding churches, although this is gained at the sacrifice, to a certain extent, of the sober and simple majesty of the earlier examples. There is, nevertheless, so much beauty and so much poetry in the whole effect that it is scarcely fair to apply the cold rules of criticism to so fanciful and fascinating a creation.

Externally the same progress is observable in these four cathedrals as in their interior arrangements. The façade of the cathedral at Paris (Woodcut No. 626) is simple in its outline, and bold and majestic in all its parts, and though perhaps a little open to the charge of heaviness, it is admirably adapted to its situation, and both in design and proportion fits admirably to the church to which it is attached. The flanks, too, of the building, as originally designed, must have been singularly beautiful; for, though sadly disfigured by the insertion of chapels, which obliterate the buttresses and deprive it of that light and shade so indispensable to architectural effect, there yet remain a simplicity of outline, and an elegance in the whole form of the building, which have not often been excelled in Gothic structures.

The lower part of the façade at Chartres (Woodcut No. 627) is older than that of Paris, and so plain (it might almost be called rude) as hardly to admit of comparison with it; but its two spires, of different ages, are unsurpassed in France. Even in the southern or older of the two, which was probably finished in the 12th century, we find all the elements which were so fully developed in Germany and elsewhere in the following centuries. The change from the square to the octagon, and from the perpendicular part to the sloping sides of the spire, are managed with the most perfect art; and were not the effect it produces destroyed by the elaborate richness of the other spire, it would be considered one of the most beautiful of its class. The new

or northern spire was erected by Jean Texier between the years 1507 and 1514, and, notwithstanding the lateness of its date, it must be considered as on the whole the most beautifully designed spire on the continent of Europe, and, though not equal in height,¹ certainly far surpassing in elegance of outline and appropriateness of design those at Strasburg, Vienna, or even Antwerp. If it has rivals it is that at



627.

North-west View of the Cathedral at Chartres. (From Chapuy.)

Friburg, or those designed for the cathedral at Cologne; but were its details of the same date, it can hardly be doubted that it would be considered the finest spire of the three.

The transepts at Chartres have more projection than those of Paris, and were originally designed with two towers to each, and two others

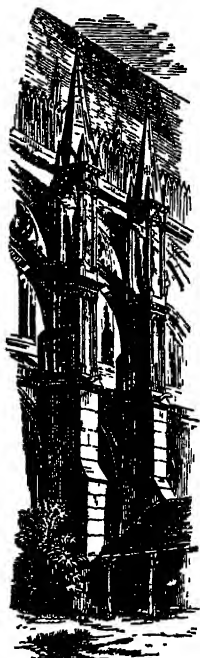
¹ The height of the old spire is 342 ft 6 in with the cross; of the new, 371 ft.

were placed one on each side of the choir, so that the cathedral would have had eight towers altogether if completed, but none except the western two have been carried higher than the springing of the roof; and though they serve to vary the outline, they do not relieve, to the extent they might have done, the heavy massiveness of the roof. In other respects the external beauty of the cathedral is somewhat injured by the extreme heaviness of the flying buttresses, which were deemed necessary to resist the thrust of the enormous vault of the central nave; and, though each is in itself a massive and beautiful object, they crowd the clerestory to an inconvenient extent, the effect of which is also somewhat injured by the imperfect tracery of the windows, each of which more resembles separate openings grouped together than one grand and simple window.

The progress that took place between this building and that at Rheims is more remarkable on the exterior than even in the interior. The façade of that church, though small as compared with some others, was perhaps the most beautiful structure produced during the Middle Ages, and, though it is difficult to institute a rigorous comparison between things so dissimilar, there is perhaps no façade either of ancient or of modern times, that surpasses it in beauty of proportion and details, or in fitness for the purpose



628. Buttress at Chartres. (From Bataillier, 'Histoire de l'Art.')



629. Buttresses at Rheims. (From Chapuy.)

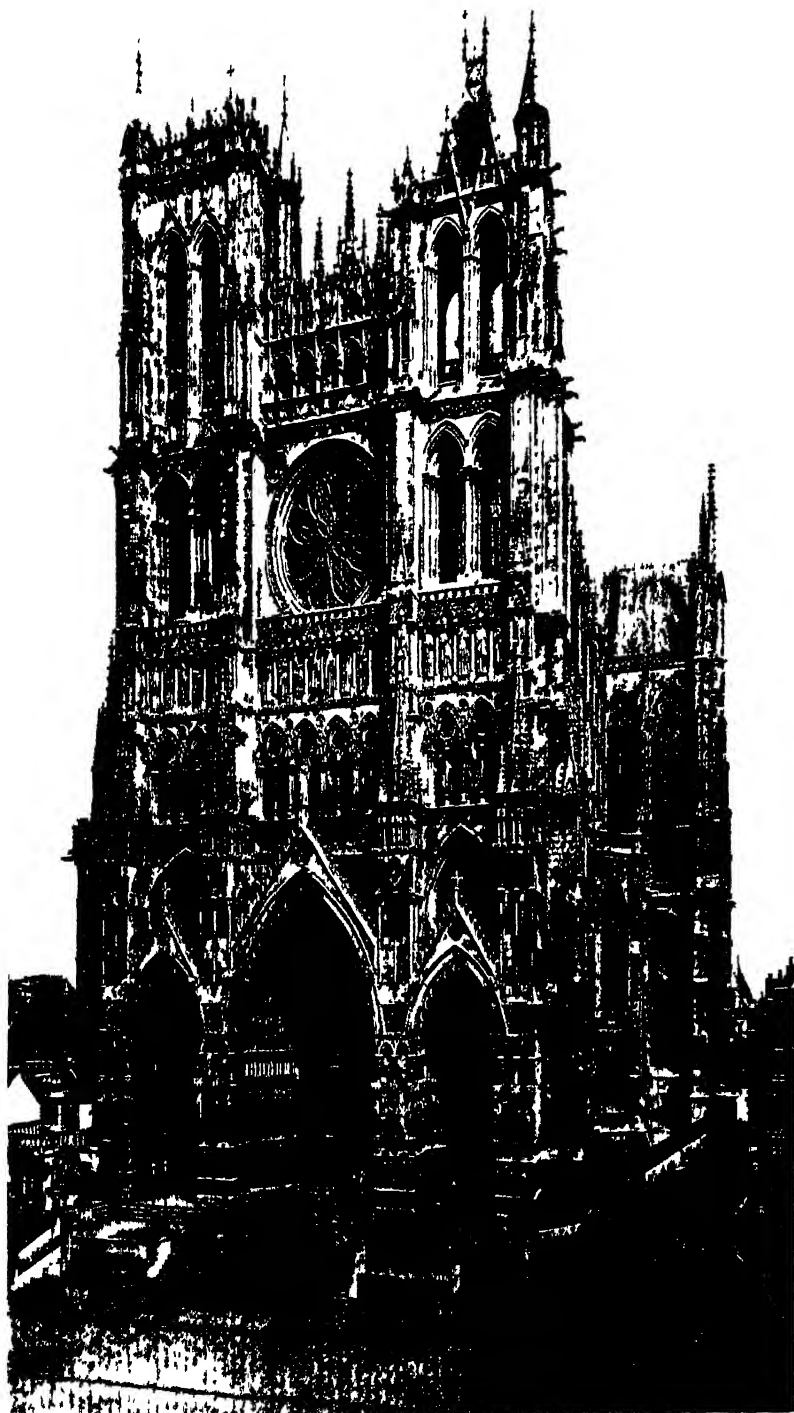
for which it was designed. Nothing can exceed the majesty of its deeply-recessed triple portals, the beauty of the rose-window that surmounts them, or the elegance of the gallery that completes the façade and serves as a basement to the light and graceful towers that crown the composition. These were designed to carry spires, no doubt as elegant and appropriate as themselves; but this part of the design was never completed. The beautiful range of buttresses which adorn the flanks of the building are also perhaps the most beautiful in France, and carry the design of the façade back to the transepts. These are late and less ornate than the western front, but are still singularly beautiful, though wanting the two towers designed to

complete them. On the intersection of the nave with the transepts there rose at one time a spire of wood, probably as high as the intended spires of the western towers, and one still crowns the ridge of the chevet, rising to half the height above the roof that the central one was intended to attain. Were these all complete, we should have the beau idéal externally of a French cathedral, with one central and two western spires, and four towers at the ends of the transepts. All these perhaps never were fully completed in any instance, though the rudiments of the arrangement are found in almost all the principal French cathedrals. In some, as for instance at Rouen, it was carried out in number, though at such different periods and of such varied design as to destroy that unity of effect essential to perfect beauty.

The external effect of Amiens may be taken rather as an example of the defects of the general design of French cathedrals than as an illustration of their beauties. The western façade presents the same general features as those of Paris and Rheims, but the towers are so small in proportion to the immense building behind as to look mean and insignificant, while all the parts are so badly put together as to destroy in a great measure the effect they were designed to produce. The northern tower is 223 ft high, the southern 205, both therefore are higher than those at York, but instead of being appropriate and beautiful adjuncts to the building they are attached to, they only serve in this instance to exaggerate the gigantic incubus of a roof, 208 ft in height, which overpowers the building it is meant to adorn.

The same is the case with the central spire, which, though higher than that at Salisbury, being 422 ft. high from the pavement, is reduced from the same cause to comparative insignificance, and is utterly unequal to the purpose of relieving the heaviness of outline for which this cathedral is remarkable. The filling up of the spaces between the buttresses of the nave with chapels prevents the transepts from having their full value, and gives an unpleasing fulness and flatness to the entire design.

All French cathedrals are more or less open to these objections, and are deficient in consequence of that exquisite variety of outline and play of light and shade for which the English examples are so remarkable; but it still remains a question how far the internal loftiness and the glory of their painted glass compensate for these external defects. The truth perhaps would be found in a mean between the two extremes, which has not unfortunately been attained in any one example; and this arises mainly from the fact that, besides the effect of mass or beauty of outline, there were many minor considerations of use or beauty that governed the design. We must consequently look closely at the details, and restore, in imagination



AMIENS CATHEDRAL

at least, the building in all its completeness, before we can discover how far the general effect was necessarily sacrificed for particular purposes.

What painted glass was to the interior of a French cathedral sculpture was to the exterior. Almost all the arrangements of the façade were modified mainly to admit of its display to the greatest possible extent. The three great cavernous porches of the lower part would be ugly and unmeaning in the highest degree without the sculptures that adorn them. The galleries above are mere ranges of niches, as unmeaning without their statues as the great mullioned windows without their "storeyed panes." In such lateral porches too, as those for instance at Chartres, the architecture is wholly subordinate to the sculpture; and in a perfect cathedral of the 13th century the buttresses, pinnacles, even the gargoyles, every "coign of vantage," tells its tale by some image or representation of some living thing, giving meaning and animation to the whole. The cathedral thus became an immense collection of sculptures, containing not only the whole history of the world as then known and understood, but also of an immense number of objects representing the arts and sciences of the Middle Ages. Thus the great cathedrals of Chartres and Rheims even now retain some 5000 figures, scattered about or grouped together in various parts, beginning with the history of the creation of the world and all the wondrous incidents of the 1st chapter of Genesis, and thence continuing the history through the whole of the Old Testament. In these sculptures the story of the redemption of mankind is told as set forth in the New Testament, with a distinctness, and at the same time with an earnestness, almost impossible to surpass. On the other hand ranges of statues of kings of France and other popular potentates carry on the thread of profane history to the period of the erection of the cathedral itself. In addition to these we have interspersed with them, a whole system of moral philosophy, as illustrated by the virtues and the vices, each represented by an appropriate symbol, and the reward or punishment its invariable accompaniment. In other parts are shown all the arts of peace, every process of husbandry in its appropriate season, and each manufacture or handicraft in all its principal forms. Over all these are seen the heavenly hosts, with saints, angels, and archangels. All this is so harmoniously contrived and so beautifully expressed, that it becomes a question even now whether the sculpture of these cathedrals does not excel the architecture.

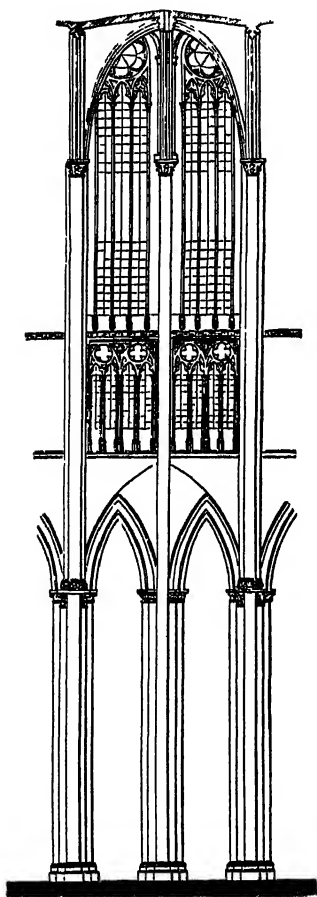
In the Middle Ages, when books were rare, and those who could read them rarer still, this sculpture was certainly most valuable as a means of popular education, but, as Victor Hugo beautifully expresses it, "*Ceci tuera cela : le livre tuera l'Église.*" The printing-press has

rendered all this of little value to the present generation, and it is only through the eyes of the artist or the antiquary that we can even dimly appreciate what was actual instruction to the less educated citizens of the Middle Ages, and the medium through which they

learned the history of the world, or heard the glad tidings of salvation conveyed from God to man. All this, few, if any, can fully enter into now; but unless it is felt to at least some extent, it is impossible these wonderful buildings can ever be appreciated. In the Middle Ages, the sculpture, the painting, the music of the people were all found in the cathedrals, and there only. Add to this their ceremonies, their sanctity, especially that conferred by the relics of saints and martyrs which they contained—all these things made these buildings all in all to those who erected and to those who worshipped in them.

The cathedral of Beauvais is generally mentioned in conjunction with that of Amiens, and justly so, not only in consequence of its local proximity, and from its being so near it in date, but also from a general similarity in style. Beauvais is in fact an exaggeration of Amiens, and shows defects of design more to be expected in Germany than in France. It was commenced five years later than Amiens, or in 1225, and the works were vigorously pursued between the years 1249 and 1267, though the dedication did not take place till 1272. The architects, in their rivalry of their

great neighbour, seem to have attempted more than they had skill to perform, for the roof fell in in 1284, and when rebuilt, additional strength was given by the insertion of another pier between every two of those in the old design, which served to exaggerate the apparent height of the pier arches. Emboldened by this, they seem to have determined to carry the clerestory to the unprecedented height of 150 ft, or about three times the width, measuring from the centre of one pier to that of the next. It is difficult to say what the effect might have been had the cathedral been



630. Bay of Nave of Beauvais Cathedral.
No scale.



INTERIOR OF AMIENS CATHEDRAL

completed with a long nave, an acute vault, wide pier-spaces and bold massive supports ; possibly however not so sublime as the choir alone is at present, for, owing to its limited floor area, the eye has only to glance



631.

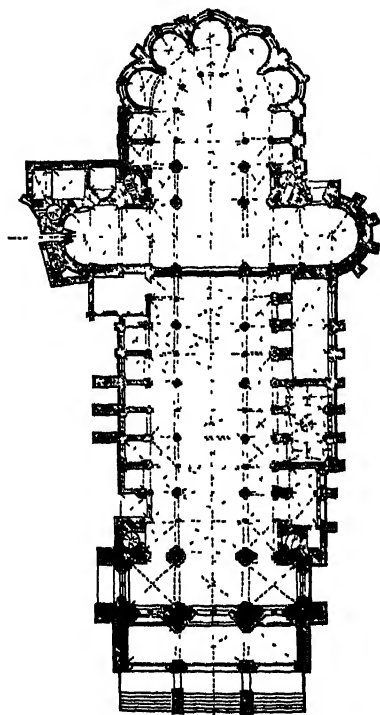
Doorway, South Transept, Beauvais (From Chaput)

aloft and the stupendous height and the magnificent construction produce an effect of splendour and size which is only excelled by that of the great Hall of Karnac, and the interior of St. Sophia.¹

¹ The choir of Beauvais is considered to be one of the four wonders of mediæval France, the others being the south spire

of Chartres, the porch of Rheims and the nave of Amiens.

The qualities just quoted of the choir would seem to have inspired the builders of later generations, for although the south transept was commenced only in 1500, and the northern one thirty years later, being finished only in 1537, there is a simplicity and grandeur in their treatment which places them far ahead of the contemporary façade of the cathedral of Rouen, built (1509–30) by Cardinal d'Amboise, which is of a most florid character, and looks like a piece of rough rockwork encrusted with images and tabernacles, and ornamented from top to bottom. In 1555 the architects of Beauvais being seized with the



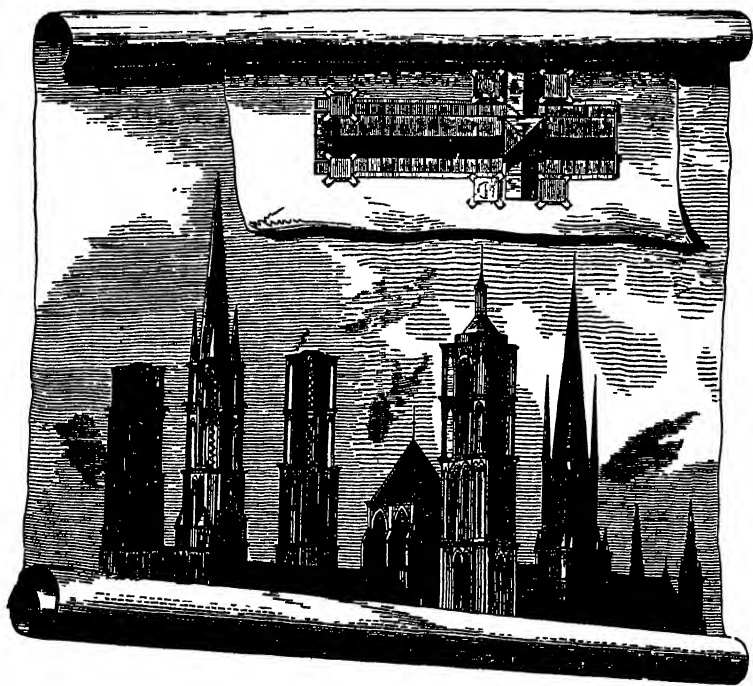
632. Plan of Cathedral at Noyon. (From Ramée's 'Monographie.') Scale 100 ft. to 1 in.

desire of rivalling the dome of St Peter's at Rome, which was then the object of universal admiration, undertook the construction of a spire on the intersection of the transepts, which they completed in thirteen years, but which stood only five years from that time, having fallen down on the day of the Ascension in the year 1573. This accident so damaged the works under it as to require considerable reconstruction, which is what we now see. This spire, of which the original drawings still exist, was 486 ft. in height; and although, as might be expected from the age in which it was erected, not of the purest design, must still have been a very noble and beautiful object, hardly inferior to that of Chartres, which was built only half a century earlier.

Taken altogether, the cathedral of Beauvais may be considered as an example of that "vaulting ambition that o'erleaps itself." Every principle of Gothic art is here carried to an extreme which tends to destroy the object with which it was designed, and not only partially has caused the ruin of the building and practically prevented its completion, but has run the risk of destroying its artistic effect, so as to make it an example of what should be avoided rather than of what should be followed. It has perhaps that want of repose and solidity which has often been made the reproach of Gothic architecture. And were it not for the perfection of its masonry and the majesty of its size, the additional piers which it was found necessary to insert might be regarded as props applied to prevent its falling, instead of suggesting,

as they do, additional strength and insuring durability. There is one example in France in which this danger of carrying the principles of Gothic art to its extreme is painfully evident. The church of St Urbain of Troyes, mentioned farther on, p. 155, and the choir of which has just been restored (1891) and filled with modern stained glass, resembles more an ephemeral construction in iron and glass, a sort of mediæval crystal palace, than one in which the solid construction of its masonry should give repose and a sense of solidity and strength.

The cathedral of Noyon is an earlier example, and one of the best



633.

Spires of Laon Cathedral. (From Dusomerard.)

and most elegant transition specimens in France, having been commenced about the year 1137, and completed, as we now see it, in 1167. Here the circular arch had not entirely disappeared, which was owing to its early date, and to its situation near the German border, and its connection with the see of Tournay, with which it was long united. Like the sister church of that place, it was triapsal, which gave it great elegance of arrangement. The one defect of this form seems to be, that it does not lend itself easily to the combination of towers which were then so much in vogue.

In singular contrast to this is the neighbouring cathedral of Laon, one of the very few in France which have no chevet. It terminates

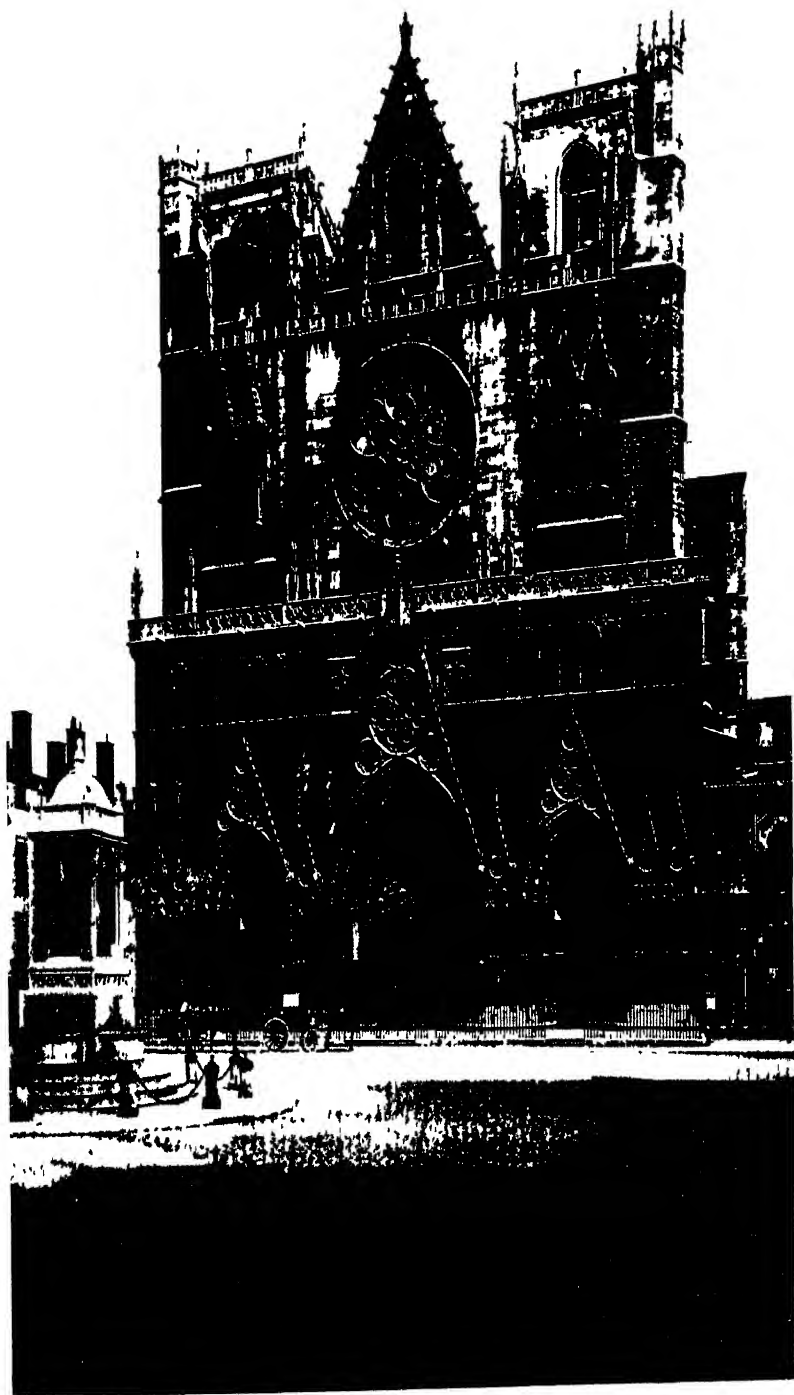
with a square east end, like an English church, except that it has there a great circular window only, instead of the immense wall of glass usually adopted in this country. In style it more resembles the cathedral of Paris than any other, though covering less ground and smaller in all its features. Its great glory is its crowning group of towers. The two western (with the exception of their spires) and the two at the end of the northern transept are complete. On the southern side only one has been carried to its full height, and the central



634. View of Cathedral at Coutances (From 'Transactions of Institute of British Architects.')

lantern is now crowned by a low pyramidal roof instead of the tall spire that must once have adorned it; but even as they now are, the six that remain, whether seen from the immediate neighbourhood of the building or from the plain below—for it stands most nobly on the flat top of a high isolated hill—have a highly picturesque and pleasing effect, and notwithstanding the rudeness of some of its details, and its deficiency in sculpture, it is in many respects one of the most interesting of the cathedrals of France.

One of the earliest of the complete pointed Gothic churches of



LYONS
THE CATHEDRAL OF ST. JEAN

France is that of Coutances (Woodcut No. 634), the whole of which belongs to the first half of the 13th century, and though poor in sculpture, makes up for this to some extent by the elegance of its architectural details, which are unrivalled or nearly so in France.

Externally it possesses two western spires, and one octagonal lantern over the intersection of the nave and transept, which, both for beauty of detail and appropriateness, is the best specimen of its class, and only wants the crowning spire to make this group of towers equal to anything on this side of the channel.

Notre Dame de Dijon is another example of the same early and elegant age, but possessing the Burgundian peculiarity of a deeply recessed porch or narthex, surmounted by a façade of two open galleries, one over the other, exactly in the manner of the churches of Pisa and Lucca of the 11th and 12th centuries, of which it may be considered an imitation. It is, however, as unsatisfactory in pointed Gothic, even with the very best details, as it is in the pseudo-classical style of Pisa, forming in either case a remarkably unmeaning mode of decoration.

The cathedrals of Sens and Auxerre are pure examples of pointed architecture. The latter (A.D. 1213) internally rivals perhaps even Coutances. Nothing can be more elegant than the junction of the lady chapel here with the chevet; for though this is almost



635. Lady Chapel, Auxerre. (From Chapuy.)

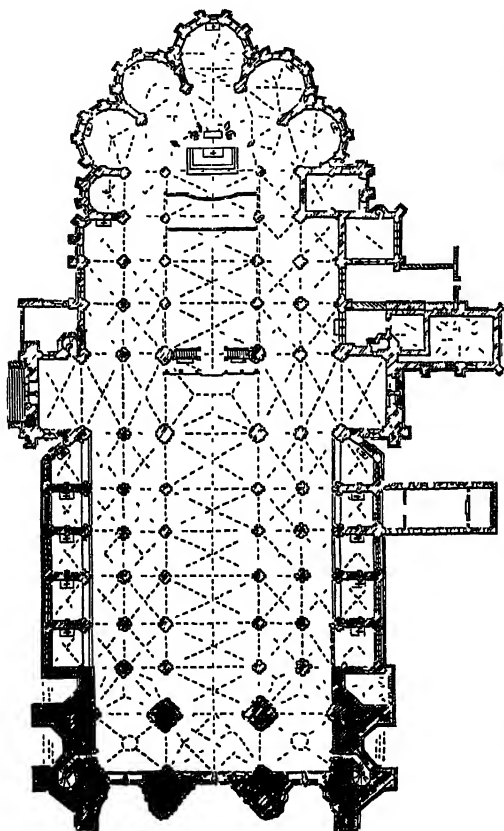
always pleasingly arranged, the design has been unusually successful in this instance. The two slender shafts, shown in the Woodcut No. 635, just suffice to give it pre-eminence and dignity, without introducing any feature so large as to disturb the harmony of the whole.

In the great church of St. Quentin, the five chapels of the chevet have each two pillars, arranged similarly to these of the lady chapel at Auxerre; and though the effect is rich and varied, the result is not quite so happy as in this instance. Taken altogether, however, few chevets in France are more perfect and beautiful than this almost unknown example.

The cathedral of Troyes, commenced in 1206, and continued steadily for more than three centuries, is one of the few in France, designed originally with five aisles and a range of chapels. The effect, however, is far from satisfactory. The great width thus given makes the whole appear low, and the choir wants that expansion and dignity which is

so pleasing at Rheims and Chartres. Still the details and design of the earlier parts are good and elegant, and the west front (Woodcut No. 637), though belonging wholly to the 16th century, is one of the most pleasing specimens of flamboyant work in France, being rich without exuberance, and devoid of the bad taste that sometimes disfigures works of this class and age.

The cathedral at Soissons is one of the most pleasing of all these churches. Nothing can surpass the justness of the proportions of the



636. Plan of Cathedral at Troyes. (From Arnaud, 'Voyage dans le Département de l'Aube.') Scale 100 ft to 1 in.

central and side aisles both in themselves and to one another. Though the church is not large, and principally of that age—the latter half of the 13th century—in which the effect depended so much on painted glass, now destroyed or disarranged, it still deserves a place in the first rank of French cathedrals.

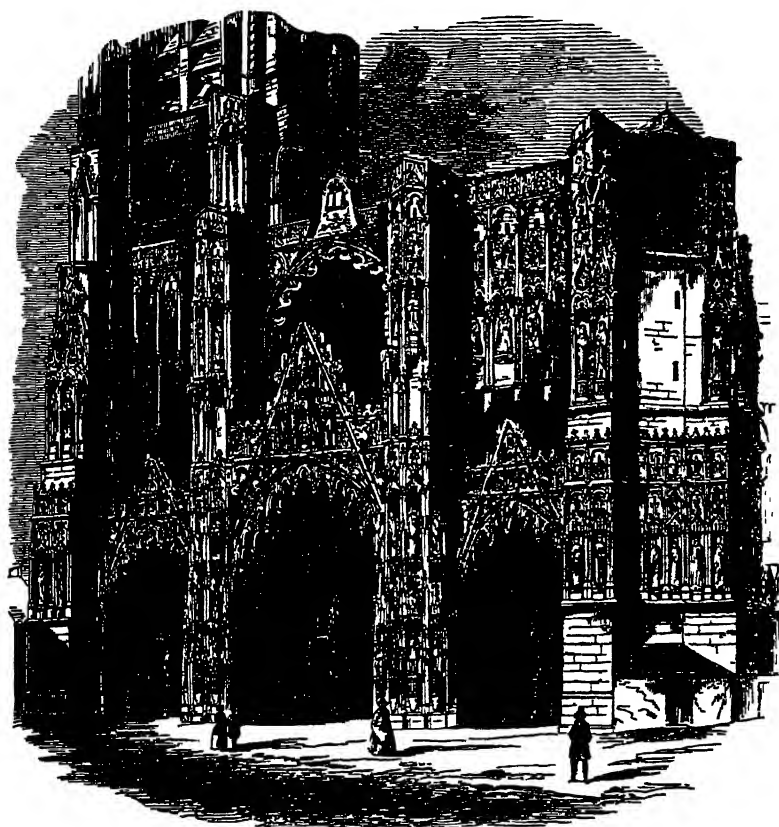
The two cathedrals of Toul and Tours present many points of great beauty, but their most remarkable features are their western façades, both of late date, each possessing two towers terminating in octagonal lanterns, with details verging on the style of the Renaissance, and yet so Gothic in design and so charmingly executed as almost to

induce the belief, in spite of the fanciful extravagance which it displays, that the architects were approaching to something new and beautiful when the mania for classical details overtook them.

The two cathedrals of Limoges and Dijon belong to the latter half of the 13th century, and will consequently when better known fill a gap painfully felt in the history of the art.

It would be tedious to enumerate all the great cathedrals of the country, or to attempt to describe their peculiarities; but we must not

omit all mention of such as Lisieux, remarkable for its beautiful façade, and Evreux, for the beauty of many of its parts, though the whole is too much a patchwork to produce an entirely pleasing effect. Nevers, too, is remarkable as being one of the only two double-apse cathedrals in France, Besançon being the other. At Nevers this was owing to the high altar having been originally at the west, a defect felt to be intolerable in France in the 16th century, when the church was



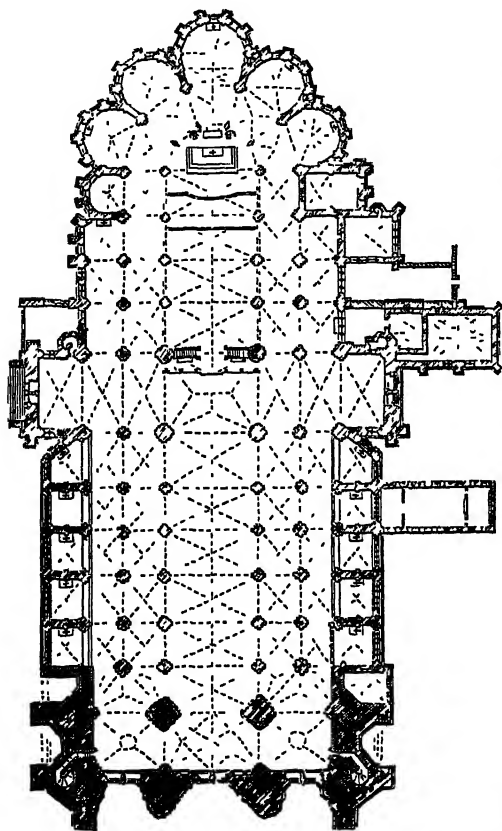
637.

Façade of Cathedral at Troyes. (From Arnard.)

rebuilt, when it was done without destroying the old sanctuary. Bordeaux, already mentioned for its noble nave without aisles, possesses a chevet worthy of it, and two spires of great beauty at the ends of the transepts, the only spires so placed, I think, in France. Autun has a spire on the intersection of the nave with the transepts as beautiful as anything of the same class elsewhere. The cathedral of Lyons is interesting, as showing how hard it was for the Southern people of France to shake off their old style and adopt that of their Northern neighbours. With much grandeur and elegance of details, it is still so

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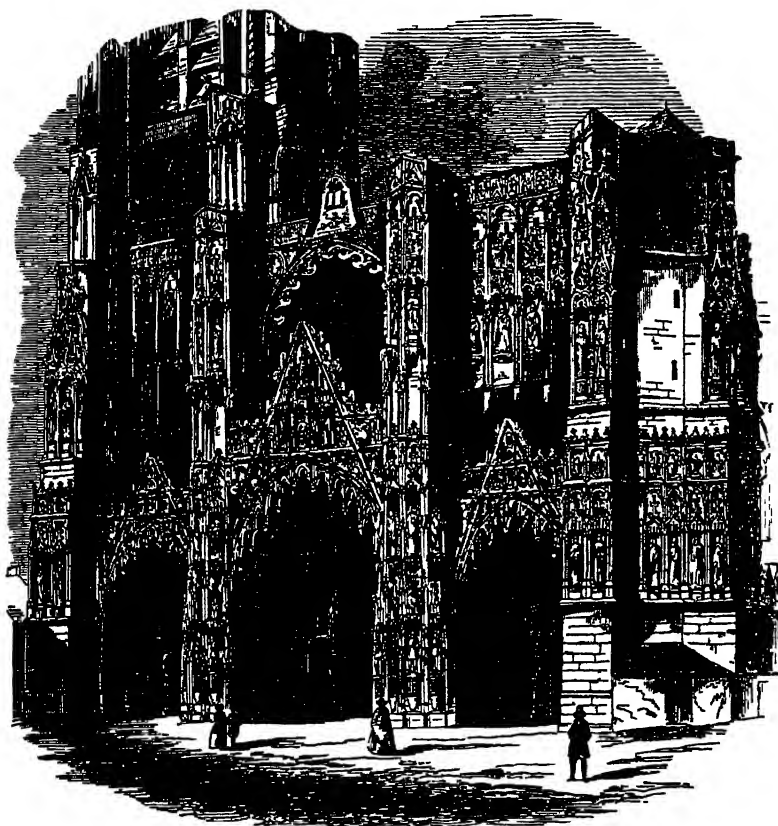
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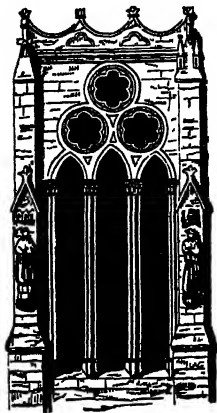


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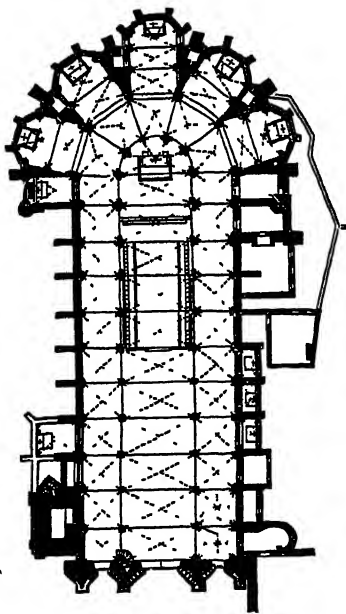
clumsy in design, that neither the whole nor any of its parts can be considered as satisfactory. The windows, for instance, as shown in the woodcut (No. 638), look more like specimens of the so-called carpenter's Gothic of modern times than examples of the art of the Middle Ages.



638. Window of Cathedral at Lyons. (From Peyr  s's 'Manuel de l'Architecture'.)

There still remains to be mentioned the cathedral at Rouen. This remarkable building possesses parts belonging to all ages, and exhibits most of the beauties, as also, it must be confessed, most of the defects of each style. It was erected with a total disregard to all rule, yet so splendid and so picturesque that we are almost driven to the wild luxuriance of nature to find anything to which we can compare it. Internally its nave, though rich, is painfully cut up into small parts. The undivided piers of the choir, on the contrary, are too simple for their adjuncts. Externally, the transept towers are beautiful in themselves, but are overpowered by the richness

of those of the west front. The whole of that fa  ade, in spite of the ruin of some of its most important features, and the intrusion of much modern vulgarity, may be called a romance in stone, consisting as it does of a profusion of the most playful fancies. Like most of the cathedrals near our shores, that of Rouen was designed to have a central spire; this, however, was not completed till late in the cinque-cento age, and then only in vulgar wood-work, meant to imitate stone. That being destroyed, an attempt has lately been made to replace it by still more vulgar iron-work, leaner and poorer than almost anything else of modern times.

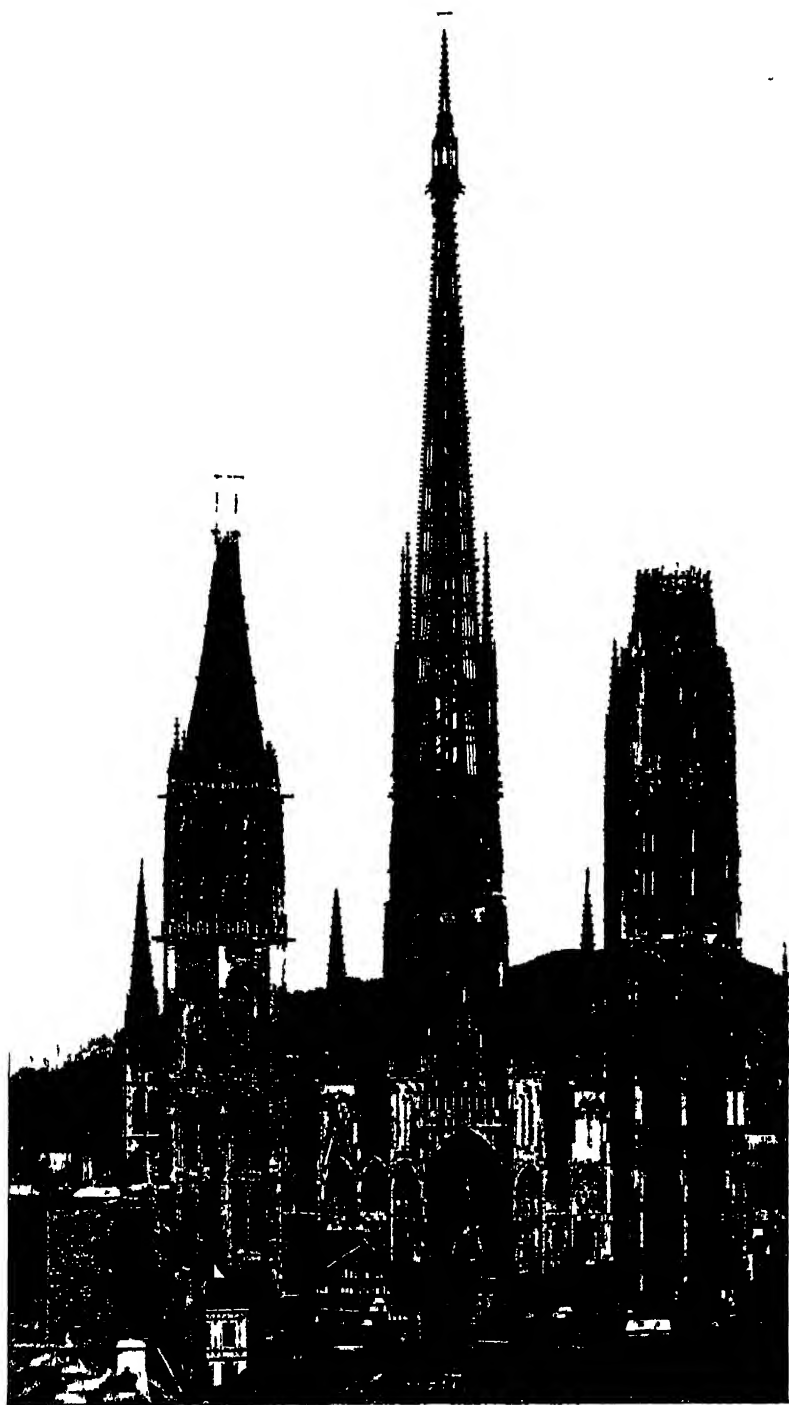


639 Plan of Cathedral at Bazas. (From Lamoth  s.) Scale 100 ft. to 1 in.

In the preceding pages, all mention of the cathedrals of Bazas and Bourges has been purposely omitted, because they belong to a different type from the above. The first

(Woodcut No. 639) is one of the most perfect specimens of the pure

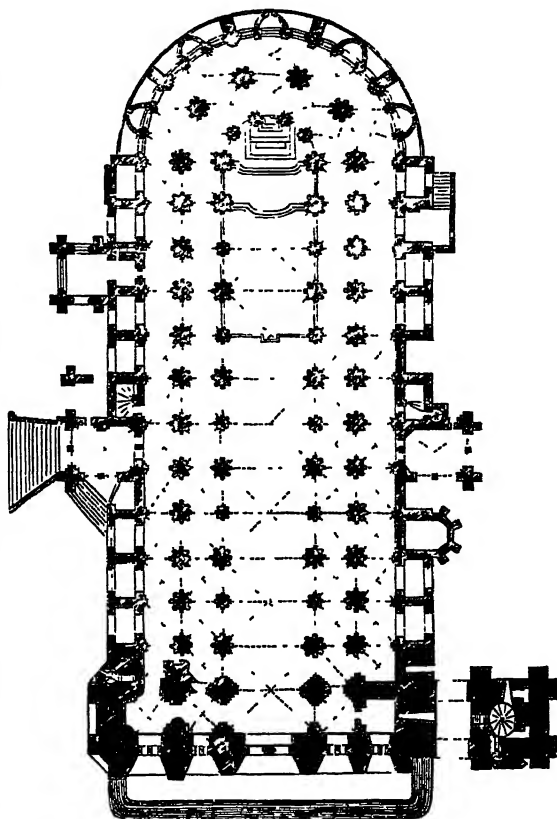
¹ 'Compte Rendu des Travaux de la Commission des Monuments,' &c : Rapport pr  sent   au Pr  fet de la Gironde, 1818 et seq.



CATHEDRAL OF ROUEN

Gothic style in the South of France. Its noble triple portal, filled with exquisite sculpture, and its extensive chevet, make it one of the most beautiful of its class. It shows no trace of a transept,—a peculiarity, as before pointed out, by no means uncommon in the South. This, though a defect in so far as external effect is concerned, gives great value to the internal dimensions, the appearance of length being far greater than when the view is broken by the intersection of the transept.

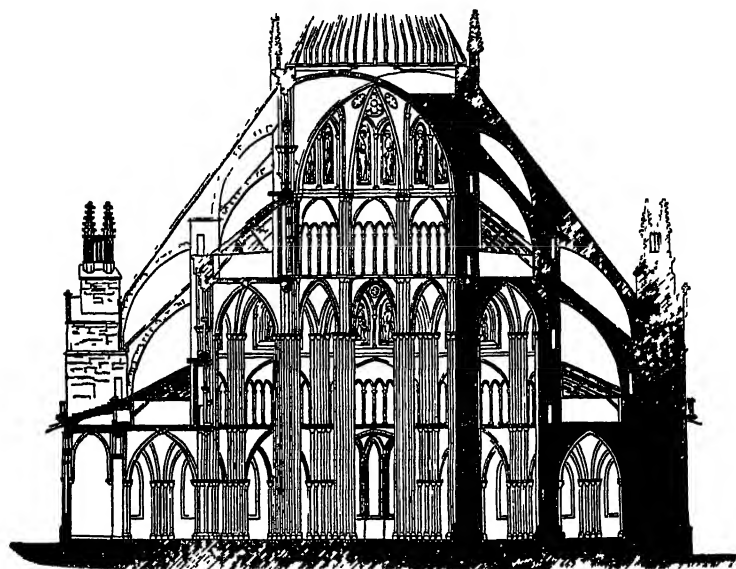
This is still more striking at Bourges, where the cathedral, though one of the finest and largest in France, covering 73,170 square feet, is still one of the shortest, being only 405 ft. in extreme length; yet, owing to the central aisle being wholly unbroken, it appears one of the longest, as it certainly is one of the most majestic of all. This cathedral possesses also another Southern peculiarity of more questionable advantage, in having



Plan of Cathedral at Bourges. (From Girardot, 'Description de la Cathédrale.') Scale 100 ft. to 1 in.

five aisles in three different heights. The section (Woodcut No. 640) will explain this. The central aisle is 117 ft. in height, those next to it 66 ft. high, the two outer only 28. These last appear to destroy the harmony of the whole, for on an inspection of the building, the outer aisles do not appear to belong to the design, but look more like afterthoughts. At Milan, Bologna, and other places in Italy, where this gradation is common, this mistake is avoided, and the effect proportionably increased, and except that this arrangement does not admit of such large window spaces, in other respects it is not quite clear that, where double aisles are used, it would not always be better

that they should be of different heights. This arrangement of the aisles was never again fairly tried in France, but even as it is, the cathedral of Bourges must rank after the four first mentioned as the finest and most perfect of the remaining edifices of its class in that country. It is singularly beautiful in its details, and happy in its main proportions, for owing to the omission of the transept, the length is exquisitely adapted to the other dimensions. Had a transept been added, at least 100 ft of additional length would have been required to restore the harmony; and though externally it would no doubt have gained by such an adjunct, this gain would not have been adequate to the additional expense so incurred.



641. Section of Cathedral at Bourges. (From Drawing by F Penrose, Esq, Architect)
Scale 50 ft to 1 in.

The greater part of the western façade of this cathedral is of a later date than the building itself, and is extended so much beyond the proportions required for effect as to overpower the rest of the building, so that it is only from the sides or the eastern end that all the beauty of this church can be appreciated.

As far as regards size or richness of decoration, the cathedral of Orleans deserves to rank as one of the very first in France, and is remarkable as the only first-class Gothic cathedral erected in Europe since the Middle Ages. The original church on this site having been destroyed by the Calvinists, the present cathedral was commenced in the year 1601 by Henry IV. of France, and although the rebuilding proceeded at first with great vigour, and the work was never wholly discontinued, it is even now hardly completed.

Considering the age in which it was built, and the contemporary specimens of so-called Gothic art erected in France and England, it is wonderful how little of classical admixture has been allowed to creep into the design of this building, and how closely it adhered to every essential of the style adopted. In plan, in arrangement, and indeed in details, it is so correct, that it requires considerable knowledge to define the difference between this and an older building of the same class. Still there is a wide difference, which makes itself felt though not easily described, and consists in the fact that the old cathedrals were built by men who had a true perception of their art ; while the modern example only bears evidence of a well-learned lesson distinctly repeated, but without any real feeling for the subject. This want betrays itself in an unmeaning repetition of parts, in a deficiency of depth and richness, and in a general poverty of invention.

COLLEGIATE CHURCHES.

It would not be difficult to select out of the collegiate churches of France as complete a series as of the cathedrals, though of inferior size. But having already gone through the one class of buildings, we must confine ourselves to a brief notice of the other. The church of Charité sur Loire was one of the most picturesque and beautiful in France. It is now partially ruined, though still retaining enough of its original features to illustrate clearly the style to which it belongs. Originally the church was about 350 ft. in length by 90 in breadth. One tower of the western front, one aisle, and the whole of the choir still remain, and belong without doubt to the church dedicated in 1106 by Pope Pascal. The presence of the pointed form in the pier arches and vaults has induced some to believe that this church belongs to the reign of Philip Augustus, about a century later, and when the church was restored after a great fire. Its southern position, however, the circumstance of its being the earliest daughter church of the abbey of Cluny, and the whole style of the building, are proofs of its earlier age. All the decorative parts, and all the external openings, still retain the circular form as essentially as if the pointed had never been introduced.

The most remarkable feature in this church is the exuberance of the ornament with which all the parts are decorated, so very unlike the massive rudeness of the contemporary Norman or Northern styles. The capitals of the pillars, the arches of the triforium, the jambs of the windows and the cornices, all show a refinement and love of ornament characteristic of a far more advanced and civilised people than those of the Northern provinces of France.

Among those who were present at the dedication of this church was the Abbé Suger, then a gay young man of twenty years of age, who about thirty years later, in the plenitude of his power, commenced

the building of the abbey of St Denis, near Paris, the west front of which was dedicated in the year 1140, and rest of the church built "stupendâ celeritate," and dedicated in 1144. Though certainly not the earliest, St Denis may be considered as the typical example of the earliest pointed Gothic in France. It terminated the era of transition, and fixed the epoch when the Northern pointed style became supreme, to the total exclusion of the round-arched style that preceded it. The effect of Suger's church is now destroyed by a nave of the 14th century—of great beauty it must be confessed—which is interpolated between the western front and the choir, both which remain in all essentials as

left by him, and enable us to decide without hesitation on the state of architectural art at the time of the dedication of the church.

A few years later was commenced the once celebrated abbey of Pontigny, near Auxerre, probably in 1150, and completed, as we now find it, within 15 or 20 years from that date.

Externally it displays an almost barn-like simplicity, having no towers or pinnacles—plain undivided windows, and no ornament of any sort. The same simplicity reigns in the interior, but the varied form and play of light



642. View in the Church of Charité sur Loire.
(From a Sketch by the Author)

and shade here relieve it to a sufficient extent, and make it altogether, if not one of the most charming examples of its age, at least one of the most instructive, as showing how much effect can be obtained by ornamental arrangement with the smallest possible amount of ornament. In obedience to the rules of the Cistercian order, it neither had towers nor painted glass, which last circumstance perhaps adds to its beauty, as we now see it, for the windows being small, admit just light enough for effect, without the painful glare that now streams through the large mullioned windows of the cathedral of Auxerre.

To the Englishman, Pontigny should be more than usually inter-

esting, as it was here that the three most celebrated archbishops of Canterbury—Becket, Langton, and Edmund—found an asylum when driven by the troubles of their native land to seek a refuge abroad, and the bones of the last-named sainted prelate are said still to remain in the *châsse*, represented in the woodcut, and are now and have been for centuries the great object of worship here.

About a century after the erection of these two early specimens, we have two others, the dates of which are ascertained, and which exhibit the pointed style in its greatest degree of perfection. The first, the Sainte Chapelle in Paris, was commenced in 1241, and dedicated in 1244,¹ the other, the church of St. Urban at Troyes, was begun in 1262, and the choir and transept completed in 1266. Both are only fragments—choirs to which it was originally intended to add naves of considerable extent. The proportions of the Sainte Chapelle are in consequence somewhat too tall and short; but the noble simplicity of its design, the majesty of its tall windows, and the beauty of all its details, render it one of the most perfect examples of the style at its culminating point in the reign of St. Louis. Now that the whole of the



643. Chevet, Pontigny. (From Chaillou des Barres)

pointed glass has been restored, and the walls repainted according to what may be assumed to have been the original design, we are enabled to judge of the effect of such a building in the Middle Ages. It may be that our eyes are not educated up to the mark, or that the restorers have not quite grasped the ancient design, but the effect as now seen is certainly not quite satisfactory. The painted glass is glorious, but the effect would certainly have been more pleasing if all the structural parts of the architecture had been of one colour. There

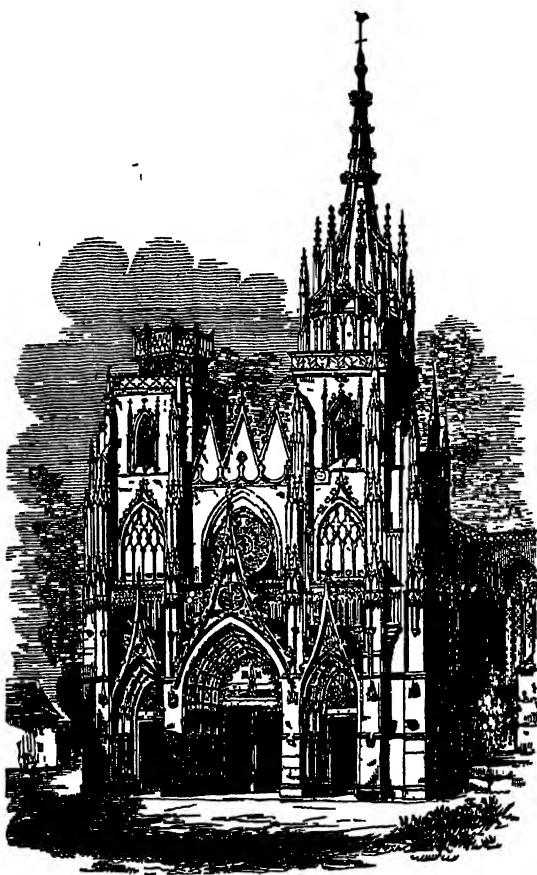
¹ A plan of the Sainte Chapelle will be found further on (page 395) when comparing it with St. Stephen's Chapel, Westminster.

is no repose about the interior—nothing to explain the construction. The flat parts may have been painted as they now are, but surely the shafts and ribs could only have been treated as stone

The other was founded by Pope Urban IV., a native of Troyes, and would have been completed as a large and magnificent church, but for the opposition of some contumacious nuns, who had sufficient power

and influence even in those days to thwart the designs of the Pope himself. Its great perfection is the beauty of its details, in which it is unsurpassed by anything in France or in Germany, its worst defect is a certain exaggerated temerity of construction, which tends to show how fast, even when this church was designed, architecture was passing from the hands of the true artist into those of the mason, whose attempts to astonish by wonders of construction then and ever afterwards completely marred the progress of the art which was thought to be thereby promoted.

About seventy years after this we

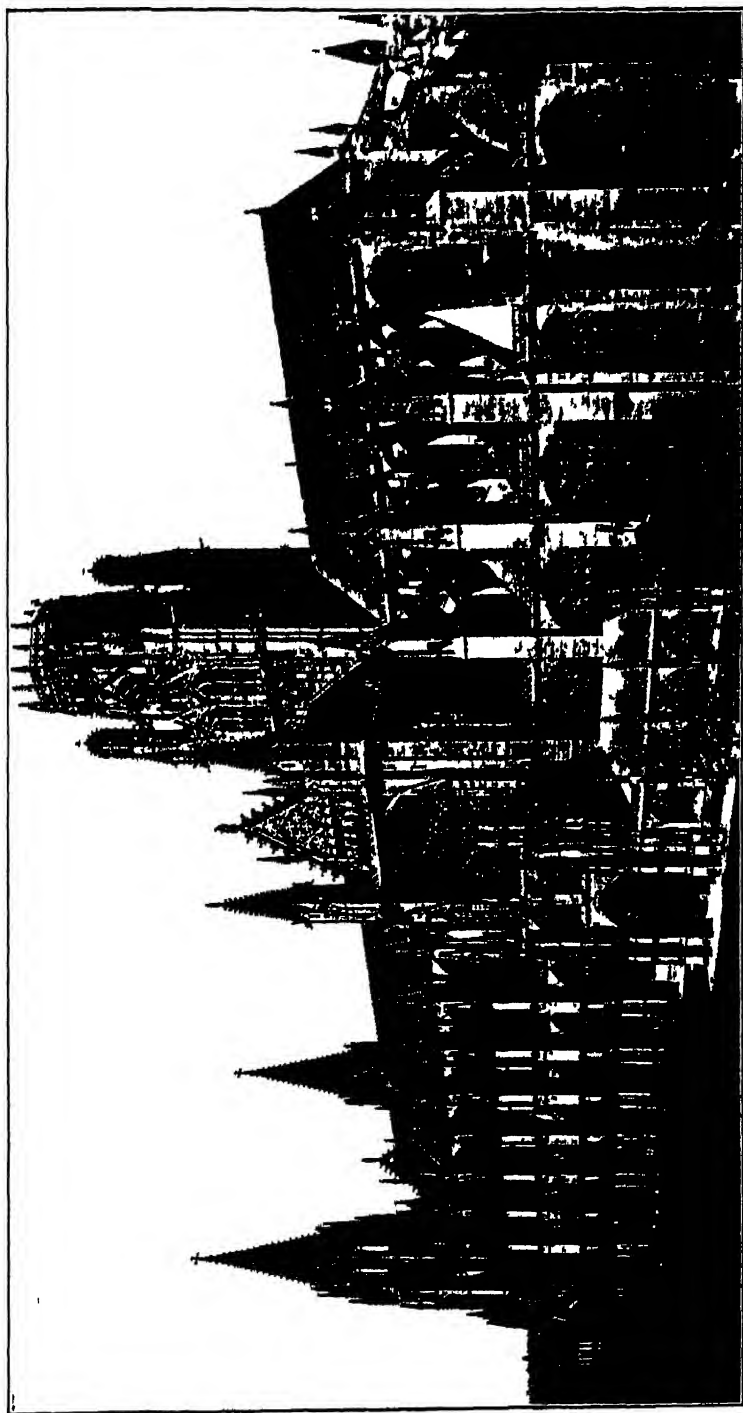


644. West Front of Ste. Marie de l'Épine. (From Dusomerard)

come to the choir of St. Ouen, and to another beautiful little church, Ste. Marie de l'Épine (Woodcut No. 644), near Châlons sur Marne, commenced apparently about 1329, though not completed till long afterwards.¹ It is small—a miniature cathedral in fact—like our St. Mary Redcliffe, which in many respects it resembles, and is a perfect

¹ Mr Beresford Hope, in his 'English Cathedrals of the XIXth Century,' contends that this church was only commenced in 1419; and also maintains that

the west front was completed by an English architect named Patrick in 1429. If this were so, we must abandon all our chronology founded on style. It is all a



CHURCH OF ST. OUVEN, ROUEN, FRANCE

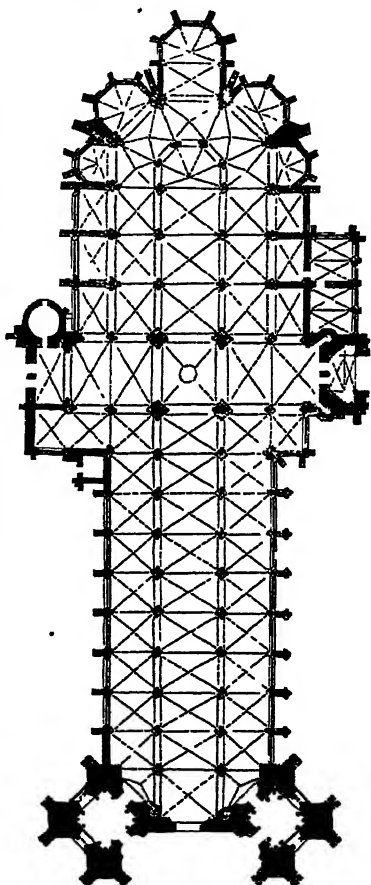
bijou of its class. One western spire remains—the other was destroyed to make room for a telegraph—and is not only beautiful in itself, but interesting as almost the only example of an open-work spire in France.

The church of St. Ouen, at Rouen, was beyond comparison the most beautiful and perfect of the abbey edifices of France. This was commenced by Marc d'Argent in the year 1318, and was carried on uninterruptedly for twenty-one years, and at his death the choir and transept were completed, or very nearly so. The English wars interrupted at this time the progress of this, as of many other buildings, and the works of the nave were not seemingly resumed till about 1490, and twenty-five years later the beautiful western front was commenced.

Except that of Limoges, the choir is almost the only perfect building of its age, and being nearly contemporary with the choir at Cologne (1276 to 1321), affords a means of comparison between the two styles of Germany and France at that age, entirely to the advantage of the French example, which, though very much smaller, avoids all the more glaring faults of the other.

Nothing indeed can exceed the beauty of proportion of this most elegant church; and except that it wants the depth and earnestness of the earlier examples, it may be considered as the most beautiful thing of its kind in Europe. The proportion too of the nave, tran-

septs, and choir to one another is remarkably happy, and affords a most striking contrast to the very imperfect proportions of Cologne. Its three towers also would have formed a perfect group as originally designed, but the central one was not completed till so late, that its details have lost the aspiring character of the building on which it stands, and the



645. Plan of Church of St. Ouen at Rouen.
(From Peyrre's 'Manuel.') Scale 100 ft. to 1 in.

mistake if the east end is not a century earlier I am, however, unwilling to go to school again, on the faith of a little pamphlet published by a French curé in a remote village,

western spires, as rebuilt within the last few years, are incongruous and inappropriate, whereas had the original design been carried out according to the drawings which still exist, it would have been one of



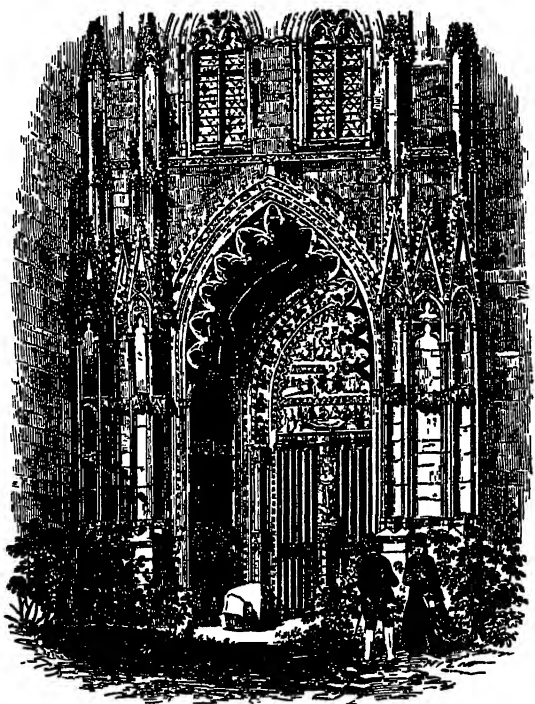
the most beautiful façades known anywhere. The diagonal position of the towers met most happily the difficulty of giving breadth to the façade without placing them beyond the line of the aisles, as is done in the cathedral of Rouen, and at the same time gave a variety to the perspective which must have had the most pleasing effect. Had the

idea occurred earlier, few western towers would have been placed otherwise; but the invention came too late, and within the last few years we have seen all traces of the arrangement ruthlessly obliterated.

The style of the choir of this church may be fairly judged from the view of the southern porch (Woodcut No. 647). This has all that perfection of detail which we are accustomed to admire in Cologne Cathedral, and the works of the time of our Second Edward, combined with a degree of lightness and grace peculiar to this church. The woodcut is too small to show the details of the sculpture in the tympanum above the doors, but

that too is of exquisite beauty, and being placed where it can be so well seen, and at the same time so perfectly protected, it heightens the architectural design without in any way seeming to interfere with it. This is a somewhat rare merit in French portals. In most of them it is evident that the architect has been controlled in his design in order to make room for the immense quantity of sculpture which usually crowds them.

On the other hand, the position of the



647. Southern Porch of St Ouen at Rouen (From Chapuy.)

figures is often forced and constrained, and the bas-reliefs nearly unintelligible, from the architects having been unable to give the sculptor that unencumbered space which was requisite for the full development of his ideas.

It would be easy to select numerous examples from the collegiate and parish churches of France to extend this series. Our limits will not, however, admit of the mention of more than one other instance. The sepulchral church of Brou en Bresse was erected between 1511 and 1536, by Margaret of Austria, daughter of Maximilian, and aunt of Charles V., Emperor of Germany. It was therefore nearly contem-

porary with Henry VII's Chapel at Westminster, and thus affords the means of comparison between the English and French styles of the day, which is wholly in favour of our own; both are the most florid specimens of their class in either country, but at Brou, both externally and internally, all majesty of form and constructive propriety are lost sight of; and though we wonder that stone could be cut into such a marvellous variety of lace-like forms, and are dazzled by the splendour of the whole, it is with infinite pleasure that we turn from these elaborate specimens of declining taste to an earlier and purer style. Fascinating as some of these late buildings undoubtedly are from the richness of decorative fancy that reigns in every detail, still they can only be regarded as the productions of the stonemason and carver, and not of the arts of the architect or sculptor so called.

In the city of Rouen we also find the beautiful church of St. Maclou (1432-1500), a gorgeous specimen of the later French style, presenting internally all the attenuation and defects of its age, but in the five arcades of its beautiful western front it displays one of the richest and most elegant specimens of flamboyant work in France. It also shows what the façade of St Ouen would have been if completed as designed. This church once possessed a noble central tower and spire, destroyed in 1794. When all this was complete, few churches of its age could have competed with it

St Jacques at Dieppe is another church of the same age, and possessing the same lace-like beauty of detail and elaborate finish, which charms in spite of soberer reason, that tells us it is not in stone that such vagaries should be attempted. Abbeville, St Riquier, and all the principal towns throughout that part of France, are rich in specimens of the late Gothic, of which we are now speaking. These specimens are in many respects beautiful, but in all that constitutes true and good art they are inferior to those of the glorious epoch which preceded them.

■

CHAPTER X.

CONTENTS.

Gothic details—Pillars—Windows—Circular windows—Bays—Vaults—Buttresses
—Pinnacles—Spires—Decoration—Construction—Furniture of churches—
Domestic architecture

ALTHOUGH in the preceding pages, in describing the principal churches of France, mention has been made of the various changes of detail which took place from the time of the introduction of the pointed style till its abandonment in favour of the revived classical, still it seems necessary to recapitulate the leading changes that were introduced. This will be most fitly done before we leave the subject of French architecture, that being on the whole the most complete and harmonious of all the pointed styles, as well as the earliest.

PILLARS.

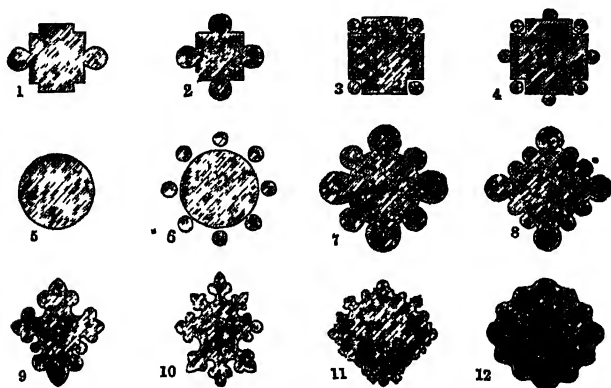
Of these details, the first that arrests the attention of the inquirer is the form of the pillars or piers used in the Middle Ages, inasmuch as it is the feature that bears the most immediate resemblance to the typical forms of preceding styles. Indeed, the earlier pillars in the round-arched style were virtually rude imitations of Roman originals, made so thick and heavy as to bear without apparent stress the whole weight of the arches they supported, and of the superincumbent wall. This increase of the weight laid upon the pillars, and consequently in their strength and heaviness, was the great change introduced into the art of building in the early round Gothic style. With the same requirements the classic architects either must have thickened their pillars immensely, or coupled them in some way. Indeed the Romans, in such buildings as the Colosseum, placed the pillars in front and a pier behind, which last was the virtual support of the wall. The Gothic architects improved on this by adding a pillar, or rather a half pillar, on each side, to receive the pier arches, and carrying up those behind and in front to support the springing of the vault or roof, instead of the useless entablature of the Romans.

By this means the pier became in plan what is represented in figs. 1 and 2 in the diagram (Weodeut No. 648). Sometimes it was varied,

as represented in fig 3, where the angle-shafts were only used to lighten the apparent heaviness of the central mass, in other examples both these modes are combined, as in fig. 4, which not only constructively, but artistically, is one of the most beautiful combinations which the square forms are capable of, combining great strength with great lightness of appearance, and variety of light and shade.

These four forms may be said to be typical in the South, where the style was derived so directly from the Roman square pier combined with an attached circular pillar.

In the North the Normans, and generally speaking, all the Frankish tribes, used the circular pillar in preference to the square pier, and consequently the variations were as shown in figs. 5, 6, 7, and 8, which, though forming beautiful combinations, wanted the accentuation produced by the contrast between the square and round forms.



648.

Diagram of Plans of Pillars

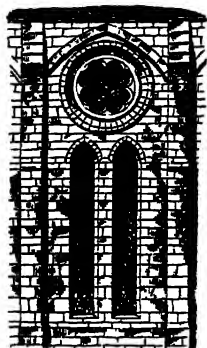
The architects after a time seemed to have felt this, and tried to remedy it by introducing ogee forms and sharp edges, with deep undercut shadows, thus applying to the pillars those forms which had been invented for the mouldings of the ribs of the vaults, and for the tracery of the windows. The expedient was perfectly successful at first, and, so long as it was practised in moderation, gave rise to some of the most beautiful forms of pillars to be found in any style. It proved, however, too tempting an opportunity for the indulgence of every sort of quirk and quibble; and after passing through the shapes shown in figs 9 and 10, where the meaning of all the parts is still sufficiently manifest, it became as complicated as fig. 11, and sometimes even more cut up, so that all meaning and beauty was lost. It became moreover very expensive and difficult to execute, so that in later times the architects reverted, either to circular pillars, or to such a form as that shown in fig. 12, which was introduced in the 16th century. The change may have been partly introduced from motives of economy,

and also to some extent from a desire to imitate the flutings of classical pillars, but from whatever motive it arose, it is singularly unmeaning and inartistic; and as the capital was at the same time omitted, the whole pillar took an appearance of cold poverty entirely at variance with the true spirit of Gothic art. This last change showed, perhaps more clearly than those introduced into any other feature, how entirely the art had died away before the classical styles superseded it.

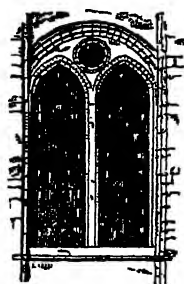
WINDOWS.

Before painted glass came into use, very small apertures sufficed to admit the required quantity of light into the churches. These openings retained their circular-arched heads long after the pointed form pervaded the vaults and pier arches, because the architects still thought them the most beautiful; they moreover occupied so small a portion of the wall spaces that their lines neither came in contact nor interfered with the constructive lines of the building itself; but when it was required to enlarge them for the purpose of receiving large pictures, the retention of the circular form was no longer practicable.

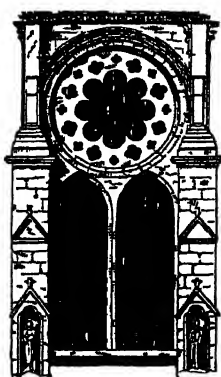
The Woodcut No. 622, showing the side elevation of Notre Dame at Paris, illustrates well three stages of this process as practised in the 12th and 13th centuries. It exhibits first the large undivided window without mullions, the glass being supported by strong iron bars, next, that with one mullion and a circular rose in the head; and lastly, in the lower storey, a complete traceried window. The transition from the old small window to the first of these is easily explained, and the Woodcut No. 649, representing one of the windows in St. Martin at Paris, will explain the transition from the first to the second. Instead of one large undivided opening, it was often thought more expedient to introduce two lancets side by side; but as these never filled, nor could fill, the space of one bay so as to follow its principal lines, it became usual to introduce a circular window of greater or less size between their heads. This, with the rude



649 Window, St. Martin
Paris (From Pa.'s
Archéologique)

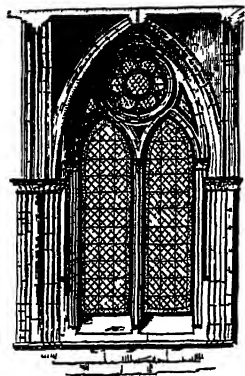


650. Window of Nave of
Cathedral at Chartres



651 Window in Choir of
Cathedral at Chartres.

construction of the age, presented certain difficulties which were obviated by carrying the masonry of the vault through the wall so as to form a discharging arch. When once this was done it required only a glance from an experienced builder to see that if the discharging arch were strong enough, the whole of the wall between the buttresses might be removed without endangering the safety of the building. This was accordingly soon done. The pier between the two lancets became attenuated into a mullion, the circle lost its independence, and was grouped with them under the discharging arch, which was carried down each side in boldly splayed jambs, and the whole became in fact a traceried window.



652 Window at Rheims

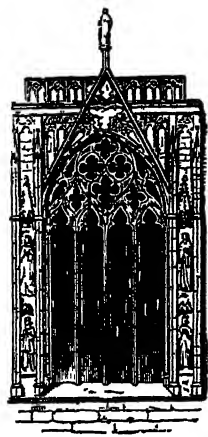


653. Window at St. Ouen.

In the cathedral at Chartres we have examples of the two extremes of these transitional windows. In the windows of the aisles of the nave (Woodcut No. 650) the circle is small and insignificant, and only serves to join together the two lancets. In the clerestory (Woodcut No. 651), which is somewhat later, the circle is all important and quite overpowers the lower part. Here it is in fact a circular window, supported by a rectilinear substructure. In both these instances the discharging arch still retains its circular form, and the tracery is still imperfect, inasmuch as all the openings are only holes of various forms cut into a flat surface, whereas to make it perfect, it is necessary that the lines of two contiguous openings should blend together, being separated by a straight or curved moulded mullion, and not merely pierced as they are in this instance. This may perhaps be better illustrated by one of the windows of the side-aisles at Rheims, where the pointed Gothic window has become complete in all its essential parts.

Even here it will be observed how awkwardly the circle fits into the spherical triangle of the upper part of the window. Indeed, there is an insuperable awkwardness in the small triangles necessarily left in fitting circles into the spaces above the lancets, and beneath the pointed head of the openings. When four or five lights were used instead of two, this defect became more apparent; and even in the example from St. Ouen (Woodcut No. 653). one of the most beautiful in France, the architect has not

been able to obviate the discordance between the conflicting lines of the circle and spherical triangle. At last, after two centuries of earnest trial, the builders of those days found themselves constrained to abandon entirely these beautiful constructive geometric forms, for tracery of a more manageable nature, and in place of the circle they invented first a flowing tracery, of which the window at Chartres (Woodcut No. 654) is an exquisite example, and then having shaken off the trammels of constructive form, launched at once into all the vagaries of the flamboyant style. In this style stone tracery was made to look bent and twisted, as willow wands. Its forms, it must be confessed, were always graceful, but constructively weak, and frequently extravagant, showing a complete contrast to the contemporary perpendicular style followed in England. That failed from the stiffness of its forms; this from the fantastic pliancy with which so rigid a material as stone was used. Greatness



654. Window at Chartres.

or grandeur was as impossible in flamboyant tracery, as grace and beauty were with the perpendicular style; still for domestic edifices, and for the smaller churches erected in the 16th century, it must be confessed the flamboyant style has a charm it is impossible to resist. It is so graceful and so fantastically brilliant, that it captivates in spite of our soberer reason, lending as it does an elegance to every edifice where it is found, and finding its parallel alone among the graceful fancies of the Saracenic architects of the best age.

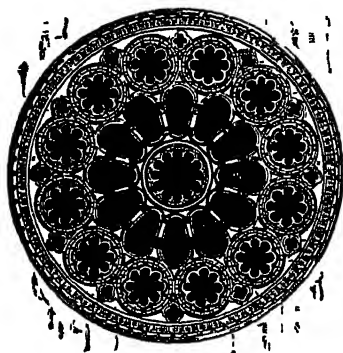
CIRCULAR WINDOWS.

By far the most brilliant examples of this class in France are to be found among the great circular windows with which the west ends and transepts of the cathedrals were adorned. There is, I believe, no instance in France of the great straight-mullioned windows of which our architects were so fond, and even where the east end terminates squarely, as at Laon, it has a great rose window. There can be little doubt that the circle, so long as it was wholly adhered to, was the noblest form architecturally, both externally and internally; but when the triforium below it was pierced, and the lower angles outside the circle were filled with tracery, making it into something like our great windows, the result was a confusion of the two modes, in which the advantages of neither were preserved.

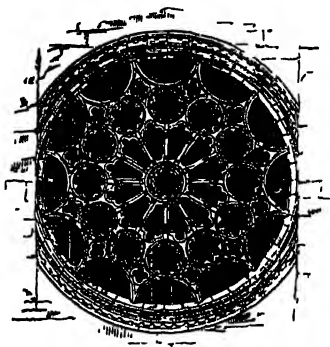
Of the earlier circular windows, one of the finest is that in the western front at Chartres (Woodcut No. 655), of imperfect tracery, like

the greater part of that cathedral, but of great size and majesty. Its diameter is 39 ft. across the openings, and 44 ft 6 in. across to the outer mouldings of the circle. Those of the transepts are smaller, being only 33 ft. across the opening, but show a considerable advance in the art of tracery, which by the time they were executed was becoming far better understood

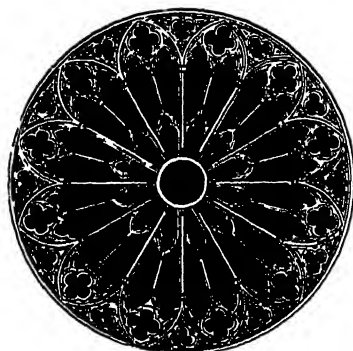
If space admitted, it would be easy to select examples to trace the progress of the invention between these early efforts and the almost



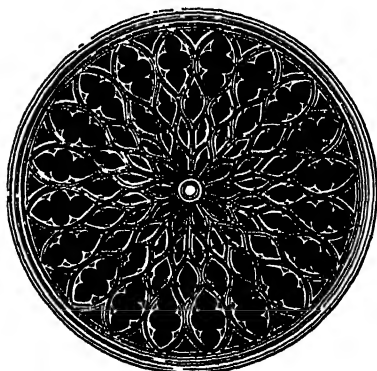
655. West Window, Chartres.



656. Transept Window, Chartres.



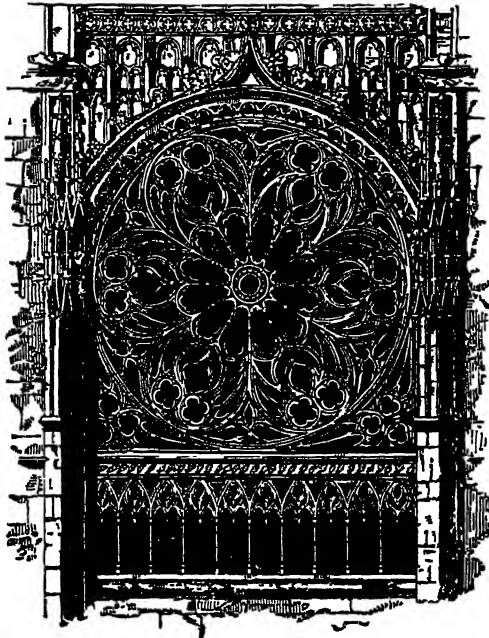
657. West Window, Rheims.



658. West Window, Evreux.

perfect window that adorns the centre of the west front at Rheims (Woodcut No. 657); and again from this to that at Evreux (Woodcut No. 658). In the latter instance, the geometric forms have given way to the lace-work of flowing tracery, of which this is a pleasing example. It is further remarkable in respect that all the parts of the tracery or mullions are of the same thickness, whereas it is usual in flowing or flamboyant tracery to introduce a considerable degree of subordination into the parts, dividing them into greater or smaller ribs, thus avoiding confusion and giving to the whole a constructive appearance which

it otherwise would not possess. This is very apparent in such a window as that which adorns the west front of St. Ouen, at Rouen, where the parts are distinctly subordinated to one another, and have consequently that strength and character which it is so difficult to impart. It also exemplifies what was before alluded to, viz., the mode in which the lower external angles of the circle were filled up, and also, in a far more pleasing manner than usual, the mode in which the pierced triforium is made to form part of the decoration. Owing to the strong transom bar here employed, there is strength enough to support the superstructure, but as too often is the case, when this is subdued and kept under, there is a confusion between the circular and upright parts, which is not pleasing. It is then neither a circular nor an upright window, but an indeterminate compound of two pleasing members, in which both suffer materially by juxtaposition.



659.

West Window, St. Ouen. (From Pugin.)

I believe it is safe to assert, that out of at least a hundred first-class examples of these circular windows, which still exist in France, no two are alike. On the contrary, they present the most striking dissimilarity of design. There is no feature on which the French architects bestowed more pains, or in which they were more successful. They are, indeed, the *chefs-d'œuvre* of their decorative abilities, and the most pleasing individual features of their greater churches. At the same time, they completely refute the idea that the pointed form is at all necessary for the production of beauty in decorative apertures.

BAYS.

It may be useful here to recapitulate what has been said of the subdivision of churches into bays, or, as the French call them, *travées*. The two typical arrangements of these are shown in Woodcuts Nos. 616

and 617, as existing before the introduction of the pointed forms. In the first a great gallery runs over the whole of the side aisle, introduced partly as a constructive expedient to serve the purpose for which flying buttresses were afterwards employed, partly as enabling the architect to obtain the required elevation without extraordinarily tall pillars or wide pier-spaces, both which were beyond the constructive powers of the earlier builders. These galleries were also useful as adding to the accommodation of the church, as people were able thence to see the ceremonies performed below, and to hear the mass and music as well as from the floor of the church. These advantages were counterbalanced by the greater dignity and architectural beauty of the second arrangement (Woodcut No. 617) where the whole height was divided into that of the side-aisles and of a clerestory, separated from one another by a triforium gallery, which represented in fact the depth of the wooden roof requisite to cover the side-aisles. When once this simple and beautiful arrangement was adopted, it continued with very little variation throughout the Middle Ages.¹ The proportions generally used were to make the aisles half the height of the nave. In other words, the string-course below the triforium divided the height into two equal parts, the space above that was divided into three, of which two were allotted to the clerestory, and one to the triforium.² It is true there is perhaps no single instance in which the proportions here given are exactly preserved, but they sufficiently represent the general division of the parts, from which the architects only deviated slightly, sometimes on one side, sometimes on the other, according to their taste or caprice. The only really important change afterwards introduced was that of glazing the triforium gallery also, by adopting a flat roof, or one nearly so, over the side-aisles, as the nave in the church of St. Ouen at Rouen, or by covering each bay by a pyramidal roof not seen from the interior, as is shown in the Woodcuts Nos. 621 and 641; the whole walls of the church, with the slight exception of the spandrels of the great pier-arches, having thus become walls of glass, the mass of the vault being supported only by the deep and bold constructive lines of which the framework of the glazed surfaces consists.

In England, we have not, as far as I am aware, any instance of a glazed triforium, but it is one of the most fascinating features in the later styles of the French architects, and where it retains its coloured glass, which is indispensable, produces the most fairy-like effect. It is however, questionable whether the deep shadow and constructive propriety of the English practice is not on the whole more satisfactory.

¹ The earlier form is found retained at Noyon, at Paris, and in most of the churches of the 12th century, but in the first years of the 13th it gave place to

the second, and was not afterwards revived.

² See Introduction, page 29, Woodcut No. 4.

In a structure of glass and iron nothing could be more appropriate than the French practice, but in a building of stone and wood more solidity is required to produce an effect which shall be permanently pleasing.

VAULTS.

It has already been explained how essential a part of a Gothic church the vault was, and how completely it was the governing power that gave form to the art. We have also seen the various steps by which the architects arrived at the intersecting vault, which became the typical form in the best age. In France especially the stone vault was retained throughout as a really essential feature, for though the English were so successful in the art of constructing ornamental wooden roofs, the practice never prevailed in France.

In the best age the arrangement of the French vaults was extremely simple. The aisles were generally built in square compartments, the vaults of which were first circumscribed, each by four equal arches (Woodcut No. 660), of which A A were transverse ribs or *arcs doubleaux* as the French called them, and were used, as we have seen, in the old tunnel-vaults. These arches, as springing from the main points of support, were the principal strengtheners of the vault,

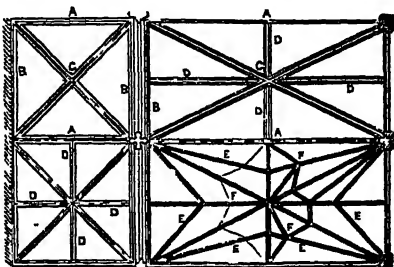


Diagram of Vaulting.

and served as permanent centres for the superstructure. B was called the *formeret*, and was a rib built into the wall, of the same form as the transverse ribs, and so called because, being the first constructed, it gave the form to the vault. Lastly, there were two more ribs springing from angle to angle, and intersecting one another at C. These were called *ogives*, from the Latin word *augere*, to strengthen,¹ the chief object of their employment however being to serve as centering. In Roman vaulting similar ribs were employed, but the spaces between were subsequently filled in flush with concrete. In Renaissance and in modern work (such as in cellar or dock-vaults, for instance), when built in brick, stone voussoirs are used for the groins, because the brickwork used there would be liable to be crushed or fall out; here also the stone is flush with the brickwork, but the Mediæval architects recognised

¹ The French antiquaries employ this word as if it signified a pointed arch, whence they designate the style itself as *ogival*. There is no doubt, however, that the word has nothing to do with the form of the arch or the ogee, but is the name of a rib common to the round-arched as well as to the pointed style.

the value of the rib, not only as a permanent centre, but as suggesting the appearance as well as the reality of strength

The roof of the nave was composed of precisely the same parts, only that, being twice as wide as each compartment was broad, the length of the transverse ribs and of the intersecting ogives was greater in proportion to the formerets than in the aisles. Another addition, and certainly an improvement, was the introduction of ridge-ribs (D D),

marking the point of the vault. These could not of course be used with circular arches, where there was no centre line for them to mark; and it probably was from this cause that the French seldom adopted them, having been accustomed to vaults not requiring them. Another reason was that all their earlier vaults were more or less domical, or in other words the point c was higher than the points A or B, though this is more apparent in hexapartite vaults, or where one compartment of the nave-vaults takes in two of the aisles, than in quadripartite, like those now under consideration. Still all French vaults have this peculiarity more or less, and consequently the longitudinal ridge-rib, where used, has an up and down broken appearance, which is extremely disagreeable, and must in a great measure have prevented its adoption.



661 Abbey Church, Souvigny
(From 'L'Ancien Bourbonnais'.)

There is, however, at least one exception to this rule in France, in the abbey church of Souvigny, represented in the Woodcut No. 661, where this rib is used with so pleasing an effect that one is surprised it was not in more general favour.

These are the only features usually employed by French architects but we do sometimes find tiercerons, or secondary ogives, used to strengthen as well as to ornament the plain faces of the vaults, one or two on each face, as at E E (in Woodcut No. 660); small ribs or *liernes*, F F, from *lier*, to bind, were also occasionally used to connect all these at the centre, where they formed star patterns, and other complicated

but beautiful ornaments of the vault. These last, however, are rare and exceptional in French vaulting, though they were treated by the English architects with such success that we wonder they were not more generally adopted in France. The most probable explanation appears to be that the French architects depended more on colour than on relief for the effect of their vaults, while in England colour was sparingly used, its place being supplied by constructive carving. Whatever may have been the comparative merits of the two methods when first used, the English vaults have a great advantage now, inasmuch as the carving remains, while the paintings of the others have perished, and we have no means left of judging of their original effect.

One of the most beautiful features of French vaulting, almost entirely unknown in this country, is the great polygonal vault of the semi-dome of the chevet, which as an architectural object few will be disinclined to admit is, with its walls of painted glass and its light constructive roof, a far more beautiful thing than the plain semi-dome of the basilican apse, notwithstanding its mosaics. Still, as the French used it, they never quite surmounted the difficulties of its construction; and in their excessive desire to do away with all solid wall, and to get the greatest possible surface for painted glass, they often distorted these vaults in a very unpleasing manner.

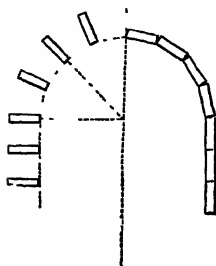
The chevet of Pontigny (Woodcut No. 643) presents a good example of the early form of vault, which owing to the small size of the windows and general sobriety of the composition, avoids the defects above alluded to. Of the later examples there are few, except that of Souvigny, represented in Woodcut No. 661, where the difficulty has been entirely conquered by constructing the spandrels with pierced tracery, so that the vault virtually springs from nearly the same height as the arch of the windows, and a very slight improvement would have made this not only constructively, but artistically perfect. This is a solitary specimen, and one which, though among the most beautiful suggestions of Gothic art, has found no admirers, or at least no imitators.

Notwithstanding this difficulty of construction, these pierced semi-domes are not only the best specimens of French vaulting, but are among the most beautiful inventions of the Middle Ages, and form a finer termination to the cathedral vista than either the great windows of the English, or the wonderful rose windows of the French cathedrals.

BUTTRESSES.

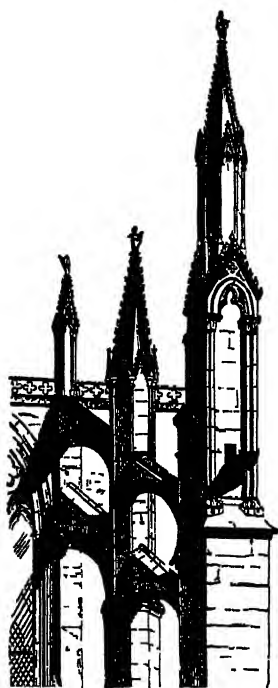
The employment of buttresses was a constructive expedient that followed almost indispensably on the use of vaults for the roofing of churches. It was necessary either to employ enormously thick walls to resist the thrust, or to support them by some more scientific arrange-

ment of the materials. The theory of the buttress will be easily understood from the diagram (Woodcut No. 662), representing seven blocks or masses of masonry, disposed first so as to form a continuous wall, but which evidently affords very little resistance to a thrust or push tending to overturn it from within. The left-hand arrangement is, from the additional breadth of base in the direction of the thrust, much less liable to fall outwards, provided the distance of the blocks from one another is not too great, and the mass of the vault does not press heavily on the intermediate space. This last difficulty was



662 Diagram of Buttresses

so much felt by the earlier French architects that, as we have seen, in the South of France especially, they used the roof of the side-aisle as a continuous buttress to resist the thrust of their tunnel-vaults. It was surmounted also by the introduction of



663 Flying Buttress of St Ouen.
(From Bausser, 'Histoire de l'Art'.)

intersecting vaults, inasmuch as by this expedient all the thrusts were collected together at a point over each pier, and a resisting mass applied on that one point was sufficient to give all the stability required. This, and the desire of raising the lights as high as possible into the roof, were the principal causes that brought this form of vaulting into general use, still it has not yet been shown that the continuous vault is not artistically the more beautiful of the two forms, if not constructively so also.

There was yet another difficulty to be mastered, which was that the principal vault to be abutted was that over the nave or central part of the church, and buttresses of the requisite depth would have filled up the side-aisles entirely. The difficulty first presented itself in the building of the basilica of Maxentius (Woodcut No. 203), and was there got over in something like the manner practically adopted in the Middle Ages, except that the arch was there carried inside, whereas the Gothic architects threw the abutting arch across on the outside and above the roof.

Several of the previous woodcuts¹ show the system of flying

¹ See Woodcuts Nos. 621, 629, 641, &c.

buttresses in various stages of advancement. The view of one of those of the choir of St Ouen (No. 663) exhibits the system in its greatest degree of development. Here there are two vertical and two flying buttresses, forming a system of great lightness, but at the same time of immense constructive strength, and when used sparingly and with elegance, as in this instance, constituting an object of great beauty. The abuse of this expedient, as in the cathedral at Cologne and elsewhere, went very far to mar the proper effect.

The cathedral at Chartres presents a singular but very beautiful instance of an earlier form of flying buttress—there the immense span of the central vault put the architects on their mettle to provide a sufficient abutment, and they did it by building what was literally an open wall across the aisle (see Woodcut No. 628), strongly arched, and the arches connected by short strong pillars radiating with the voussoirs of the arch. Nothing could well be stronger and more scientific than this, but the absence of perpendicularity in the pillars was unpleasing to the eye then as now, and the contrivance was never repeated.

A far more pleasing form was that adopted afterwards at Amiens (Woodcut No. 664) and elsewhere, where a series of small traceried arches stand on the lower flying buttress, and support the upper, which is



664. Flying Buttress at Amiens. (From Chapuy)

straight-lined. Even here, however, the difficulty is not quite got over; the unequal height of these connecting arches, and the awkward angle which the lower supports make with the curvilinear form on which they rest, deprive them of that constructive propriety which alone secures a perfectly satisfactory result in architecture. The problem indeed is one which the French never thoroughly solved, though they bestowed immense pains upon it. Brilliant as the effect sometimes is of the immense mass of pinnacles and flying buttresses, they are seldom so put together as to leave an entirely satisfactory result on the mind of the spectator. Taken all in all, perhaps the most pleasing example is that of Rheims (Woodcut No. 629)—those on each side of the nave especially—where two bold simple arches transmit the pressure from a bold exquisitely pinnacled buttress to the sides of the clerestory, and in such a manner as to leave no doubt

whatever either as to their purpose or their sufficiency to accomplish their object.

Notwithstanding the beauty which the French attained in their flying buttresses, it is still a question whether they did not carry this feature too far. It must be confessed that there is a tendency in the abuse of the system to confuse the outlines and to injure the true architectural effect of the exterior. Internally it no doubt enabled them to lighten their piers and increase the size of their windows to an unlimited extent, and to judge fairly we must balance between the gain to the interior, and the external disadvantages. This we shall be better able to do when considering the next constructive expedient, which was that of the introduction of pinnacles.

PINNACLES.

The use of pinnacles, considered independently of their ornamental purposes, is evident enough. It is obvious that a wall or pillar which has to resist the thrust of a vault or any other power exerted laterally, depends for its stability on its thickness, its solidity, and generally on its lateral strength. A material consideration, as affecting this solidity, is that of weight. The most frequent use of pinnacles by the French was to surmount the piers from which the flying buttresses sprang. To these piers weight and solidity were thus imparted, rendering them a sufficiently steady abutment to the flying arches, which in their turn abutted the central vaults.

It must be understood that these expedients of buttresses and pinnacles were only employed to support the central roof of the nave. The vaults of the aisles were so narrow as not to require any elaborate system of abutments for their support—the ordinary thickness of the walls would have sufficed for that purpose; but they also had the advantage of the use of the supports designed for the larger vaults.

As a general rule the English architects never hesitated to weight their walls so as to apply the resistance directly on the point required, and not only adorned the roofs of their churches with pinnacles, but raised towers and lanterns on the intersections on all occasions. The French, on the other hand, always preferred placing these objects, not *on* their churches, but rather grouped around them, and springing from the ground. Thus, it is true, enabled them to indulge in height and lightness internally to an extent unknown in England. This extravagance proved prejudicial to the true effect even of the interior, while externally the system was very destructive of grace and harmony. A French cathedral is generally solid and simple, as high as the parapet of the side-aisles, but above this base the forest of pinnacles and buttresses that spring from it entirely obscure the

clerestory, and confuse its lines. Above this again the great mass and simple form of the high steep roof, unbroken by pinnacles or other ornaments, contrasts unpleasingly with the lightness and confused lines immediately below it. This inconsistency tends to mar the beauty of French cathedrals, and even of their churches, though in the smaller buildings the effect is less glaring owing to the smallness of the parts.

SPIRES.

An easy transition leads from pinnacles to spires, the latter being but the perfect development of the former, and each requiring the assistance of the other in producing a thoroughly harmonious effect. Still their uses were widely different, for the spire never was a constructive expedient, or useful in any way. Indeed, of all architectural features, it is the one perhaps to which it is least easy to apply any utilitarian rule.

Towers were originally introduced in Christian edifices partly as bell-towers, partly as symbols of power, and sometimes perhaps as fortifications, to which may be added the general purpose of ornamenting the edifices to which they were attached, and giving to them that dignity which elevation always conveys.

From the tower the spire arose first as a wooden roof, and as height was one of the great objects to be attained in building the tower, it was natural to eke this out by giving the roof an exaggerated elevation beyond what was actually required as a mere protection from the weather. When once the idea was conceived of rendering it an ornamental feature, the architects were not long in carrying it out. The first and most obvious step was that of cutting off the angles, making it an octagon, and carrying up the angles of the tower by pinnacles, with a view to softening the transition between the perpendicular and sloping part, and reducing it again to harmony.

One of the earliest examples in which this transition is successfully accomplished is in the old spire at Chartres (Woodcut No. 627), the change from the square to the octagon, and from the tower to the pyramid, being managed with great felicity. The western spires of St. Stephen's abbey at Caen (Woodcut No. 613), though added in the age of pointed Gothic to towers of an earlier age, are also pleasing specimens. But perhaps one of the very best in France, for its size and age, is that of St. Pierre at Caen (Woodcut No. 665), uniting in itself all the properties of a good design without either poverty or extravagance. The little lantern of Ste. Marie de l'Épine (Woodcut No. 644), though small, is as graceful an object as can well be designed; and the new spire at Chartres (Woodcut No. 627), as before remarked, is, except as

regards the defects inherent in its age, one of the most beautiful in Europe.

This feature is nevertheless, it must be confessed, rarer in France than might be expected. This is perhaps owing to many spires having



665.

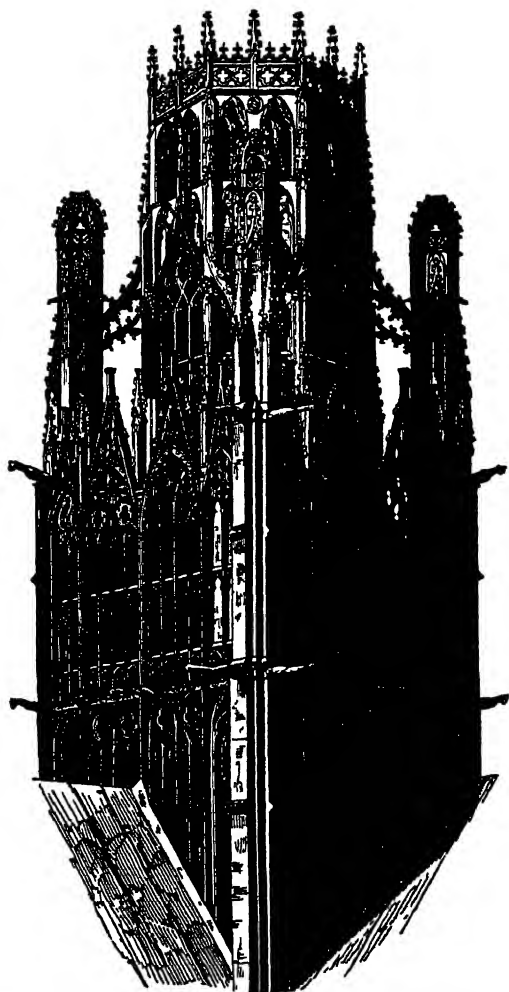
St Pierre, Caen (From Chapuy)

been of wood, to their having been allowed to decay, and to their removal; while in other instances it is certain that the design of erecting them has been abandoned in consequence of the tower, when finished, having been found insufficient to bear their weight.

The ruined church of St John at Soissons has two, which are still of great beauty. At Bayeux are two others, not very beautiful in

themselves, but which group pleasingly with a central lantern of the Renaissance age.¹ And at Coutances there are two others of the best age (Woodcut No. 634), which combined with a central octagonal lantern make one of the most beautiful groups of towers in France. Here the pitch of the roof is very low, and altogether the external design of the building is much more in accordance with the canons of art prevalent on this side of the Channel than with those which found favour in France.

Of the earlier French lanterns, this at Coutances is perhaps the best specimen to be found of the latter class there is none finer than that of St. Ouen (Woodcut No. 666), and had the western towers been completed in the same character, in accordance with the original design, the towers of this church would probably be unrivalled. Even alone the lantern is a very noble architectural feature, and appropriate to its position, though some of the details mark the lateness of the age in which it was erected.

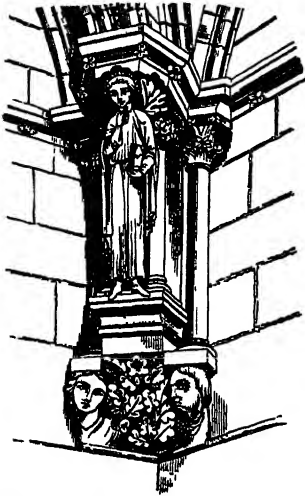


Lantern, St Ouen, Rouen (From a print by Chapuy)

Notwithstanding the beauty of these examples, it must be confessed that the French architects were not so happy in their designs of spires and lanterns as they were in many other features.

¹ This was taken down in 1856 to relieve the piers of the tower which were being crushed owing to their defective construction. After the rebuilding of the piers in 1856-59, a poorly designed Gothic lantern was substituted.—Ed

It would be in vain to attempt to enumerate all the smaller decorative features that crowd every part of the Gothic churches of France, many of which indeed belong more to the department of the sculptor than to that of the architect, though the two are so intimately interwoven that it is impossible to draw the line between them. It is,

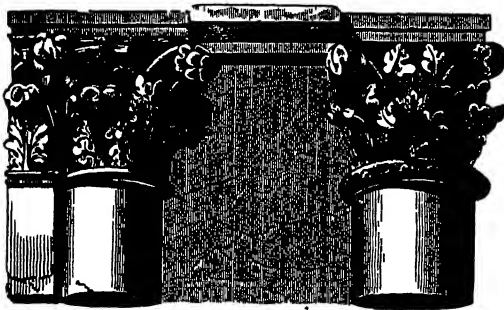


667. Corbel (From Didron, *Annales Archéologiques*.)

however, to the extreme care bestowed on these details and their extraordinary elaboration that the Gothic churches of the best age owe at least half their effect. There are many churches in Italy of the Gothic and Renaissance ages, larger and grander in their proportions than some of the best French examples, but they fail to produce a similar effect because these details are all—if the expression may be used—machine-made. The same forms and ornaments are repeated throughout, and too frequently borrowed from some other place without any evidence of thought or fitness in their application, and consequently call up no responsive feeling in the mind of the spectator.

On this side of the Alps, in the best

age, every moulding, every detail, exhibits an amount of thought combined with novelty, and is always so appropriate to the place or use to which it is



668

Capitals from Rheims.

applied, that it never fails to produce the most pleasing effect, and to heighten to a great extent the beauty of the building in which it is found. The corbel for instance represented in Woodcut No. 667 is as much

a niche for the

statue as a bracket to support the ends of the ribs of the vaults, and is one of the thousand instances which are met with everywhere in Gothic art of that happy mixture of the arts of the mason, the carver, and the sculptor, which, when successfully combined, produce a true artistic effect. These combinations are so numerous and so varied that it would be hopeless to attempt to classify them,

or even to attempt to illustrate the varieties found in any single cathedral.¹

The same may be said of the capitals of the pillars, which in all the best buildings vary with every shaft, and appear to have been executed after the architect had finished his labours, by artists of a very high class. In the best age, in France at least, as in the examples from Rheims, shown in Woodcut No. 668, they would appear to have retained a reminiscence of a Roman Corinthian order, but to have used it with a freedom entirely their own.

CONSTRUCTION.

It has been shown that the exigencies of a Gothic cathedral were a stone roof, a glass wall, and as great an amount of space on the floor, as little encumbered with pillars and points of support, as could be obtained. The two first of these points have been sufficiently insisted upon in the preceding pages; the last, however, demands a few more remarks, as the success achieved by the masons in the Middle Ages in this respect was one of their chief merits, though it was but a mechanical merit after all, and one in which they hardly surpassed their masters the Romans. The basilica of Maxentius, for instance, covers a space of 68,000 sq. ft., or about the average size of a French cathedral, and the points of support, or in other words the piers and walls, occupy only 6900 sq. ft., or between a 9th and a 10th part of the whole area. If we turn to the great cathedral of St. Peter's at Rome, we find the points of support occupying more than one-fourth of the whole area, though built on the model, and almost a copy, of the Roman basilica. At St. Mary's at Florence they occupy one-fifth; and in St. Paul's, London, and the Pantheon at Paris, the walls and pillars occupy in the first rather more, in the other rather less, than one-sixth. If from these we turn to some of the Mediæval examples, we find for instance at

	The whole area.	Solid	Ratio
Bourges . .	61,591 . .	11,908 . .	0 181, or between 1-5th and 1-6th
Chartres . .	68,261 . .	8,888 . .	0 130, ,, 1-8th.
Paris . . .	64,108 . .	7,852 . .	0 122, ,, 1-8th and 1-9th
St Ouen . .	47,107 . .	4,637 . .	0 040, ,, 1-10th and 1-11th.

The figures, however, at Bourges include a heavy and extended porch not belonging to the original design, which if omitted would

¹ M. Viollet le Duc's 'Dictionnaire d'Architecture' contains several hundred examples of these minor architectural details of French Mediæval architecture. All are there drawn with skill, and engraved with exquisite taste. They form a wonderful illustration of the exuberance of fancy and fertility of invention of the French architects in those days. The limits of this work do not admit of more than a mere passing allusion to this most fascinating subject.

reduce the fractional proportion considerably; and if the unbuilt towers of St. Ouen were excluded, the proportion of the points of support to the area would be less than one-twelfth.

Our best English examples show a proportion of rather less than one-tenth, and though they have not the great height and wide-spreading vaults of the French cathedrals, their spires and pinnacles externally perhaps more than counterbalance this. Taken altogether it may generally be stated that one-tenth is about the proportion in the best Gothic churches of the best age. When we find it exceed this, it is obvious that the lightness of the walls and pillars has been carried to excess, and even in St. Ouen, if there is an error, it is on this side. There can be no question that to produce a satisfactory effect a church requires solidity, and apparent as well as real strength; for, without affecting the extreme massiveness of Egyptian art, with its wonderful expression of power and durability, there is an opposite extreme far more prejudicial to true architectural effect in parading, as it were, mechanical contrivances of construction, so as to gain the utmost utilitarian effect with the least possible expenditure of means. This the Egyptians utterly despised and rejected, and heaped mass on mass, even at the expense of any convenience or use for which the building might have been designed. The French architects, on the other hand, made it their study to dispense with every ton of stone they could possibly lay aside. This system they undoubtedly carried too far, for without looking at such extreme examples as the choir of Beauvais or St. Ouen, everywhere in France we find a degree of airy lightness and tenuity of parts destructive of many of the most important conditions of architectural excellence.

FURNITURE OF CHURCHES.

Little less thought and expense were probably bestowed upon what we may call the furnishing of Gothic churches than upon the fabrics themselves. Though the objects included in this denomination were altogether of a lower class of art, they were still essential parts of the whole design, and we cannot fairly judge of the buildings themselves without at least endeavouring to supply their minor arrangements.

It is not easy to do this in France, nor indeed in any part of Europe, as no one church or chapel displays at the present day all the wealth and ornament which once belonged to it.

There is scarcely a single church in France with its original altar, the most sacred and therefore generally the most richly adorned part of the whole. These have either been plundered by the Huguenots, rebuilt in the execrable taste of the age of Louis XIV., or destroyed during the Revolution.

The cathedrals of Amiens and Rouen are among the few which retain their original stalls, and the enclosure of the choir at Chartres is one of the most elaborate pieces of ornamental sculpture to be found. That at Alby has been before alluded to, and fragments of this feature still exist in many cathedrals.

The Rood-screens, or *Jubés*, which almost all French churches once possessed, are rarer than even the other parts of these enclosures. A



669. Rood-Screen from the Madeleine at Troyes. (From Arnaud, 'Voyage dans l'Aube'.)

good example of them is found in the church of the Madeleine at Troyes (Woodcut No. 669), which gives a favourable idea of the richness of decoration that was sometimes lavished on these parts. Though late in age, and aiming at the false mode of construction which was prevalent at the time of its execution, it displays so much elegance as to disarm criticism. It makes us too regret the loss of the rood-screens of St. Ouen's (of which we can alone judge from drawings) and of the larger cathedrals; though of these we are able to form some idea by

following out the design of the lateral screens, of which they formed a part.

If to these we add the altars of the minor chapels, with the screens that divided them from the nave, the tombs of wealthy prelates and nobles, the organ galleries, with their spiral stairs and richly-carved instrument cases, and all the numberless treasures of art accumulated by wealth and piety, we may form some idea of what a Mediæval cathedral really was, though scarcely one now exists in any part of Europe in an entire state.

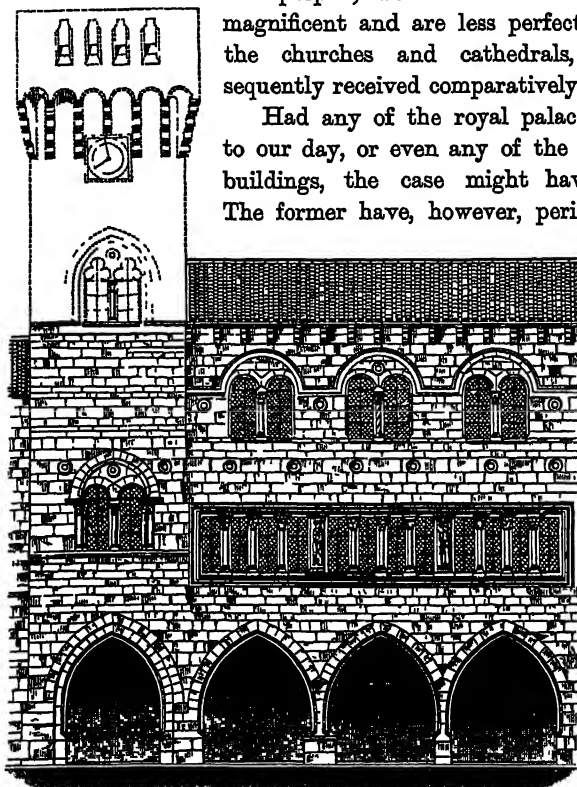
DOMESTIC ARCHITECTURE.

It is probable that specimens remain sufficient to elucidate in an archæological point of view the progress of domestic architecture in France, and thereby to illustrate the early manners and customs of the people; but these remains are much less magnificent and are less perfectly preserved than the churches and cathedrals, and have consequently received comparatively little attention.

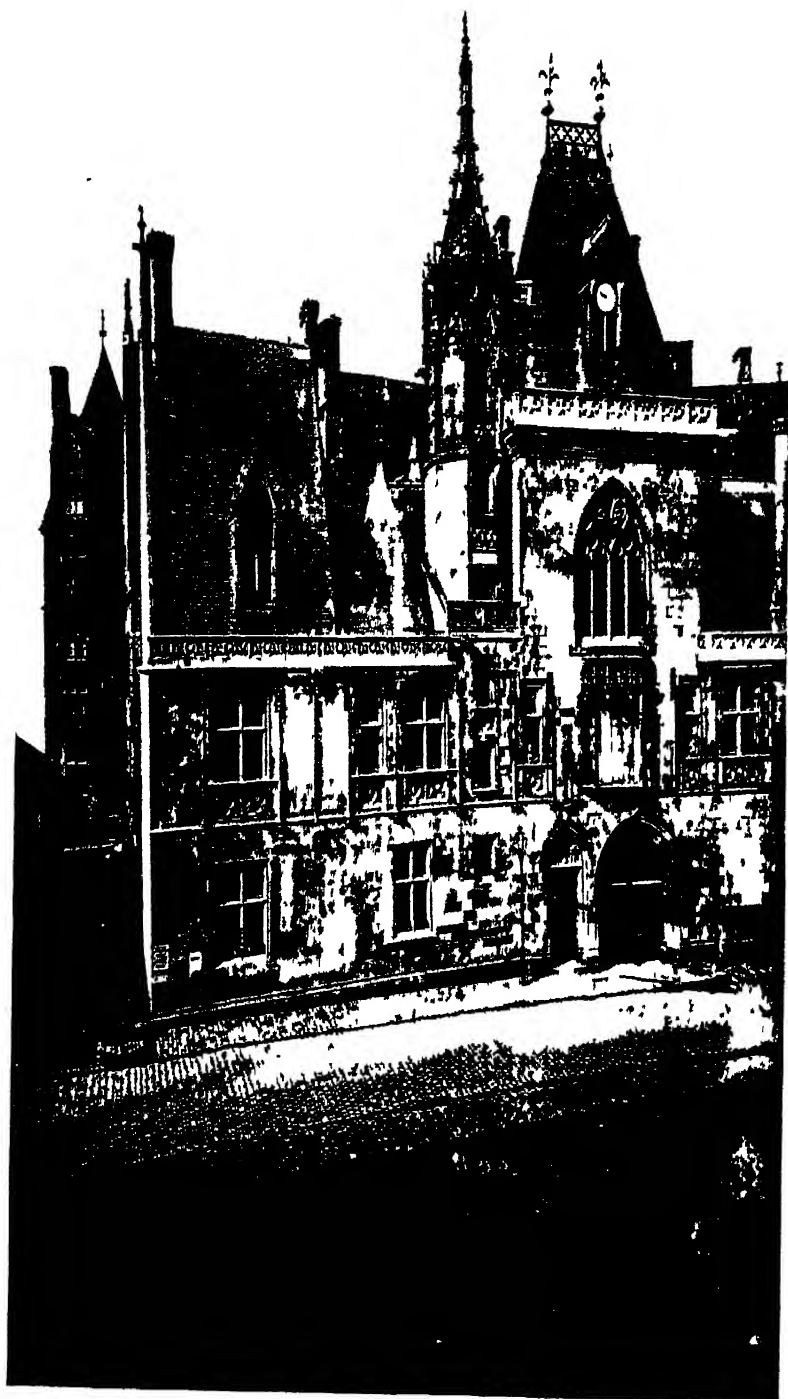
Had any of the royal palaces been preserved to our day, or even any of the greater municipal buildings, the case might have been different. The former have, however, perished, without an

exception; and as regards the latter, France seems always to have presented a remarkable contrast to the neighbouring country of Flanders.

No town in France proper seems to have possessed in the Middle Ages prior to the end of the 15th century either a municipality or a town-hall of



any note. When necessary to discuss communal business it was the custom to meet in the open air, or occasionally in the churches or



HOUSE OF JACQUES CŒUR, BOURGES

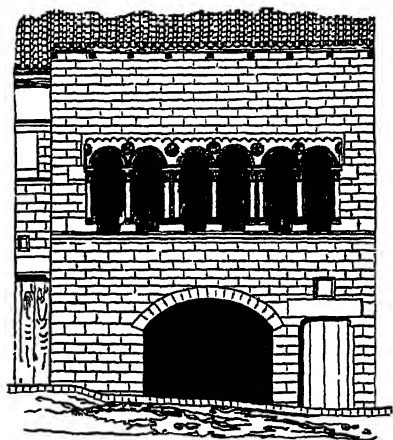
cloisters. There is one notable exception to this in the town-hall of St. Antonin, in the department of Tarn and Garonne, which is a remarkable edifice of the 12th century, and though partially restored retains still the principal features of its early design (Woodcut 670). The ground storey, used as a market, consists of a series of pointed arches, the one on the left being a passage-way through. On the first floor is a fine room, lighted by three windows, each subdivided by three shafts. The two piers separating the windows (and which on the inner wall support segmental arches carrying the wall above) are decorated with sculpture representing Adam and Eve and Moses. The second storey, which rises into the roof, is lighted by three double windows. Of later examples at the end of the 15th and commencement of the 16th centuries there exist still the town-hall of Compiègne, a beautiful example, with central tower; and at Saumur, St Quentin, Orleans, Bruges, and Beaugency a series of small but interesting buildings, some flamboyant and others showing early Renaissance influence.

In a work like the present, which is barely sufficient in extent to admit of all the great typical examples of architectural art being enumerated, much less described, it is evident that to domestic art a very subordinate position must be assigned. Perhaps it ought to be omitted altogether.

There are, however, so many beauties in even the most insignificant productions of the great ages, that it may be expedient at least to direct attention to the subject, and the three examples here given may serve to illustrate the forms of the art at the three great epochs of the French Gothic style.

The first (Woodcut No. 671) is from a house at Cluny, and exhibits the round-arched arcade with its alternate single and coupled columns, which arrangement was usual at that period, and of which examples are found all over the South of France and as far north at least as Auxerre.

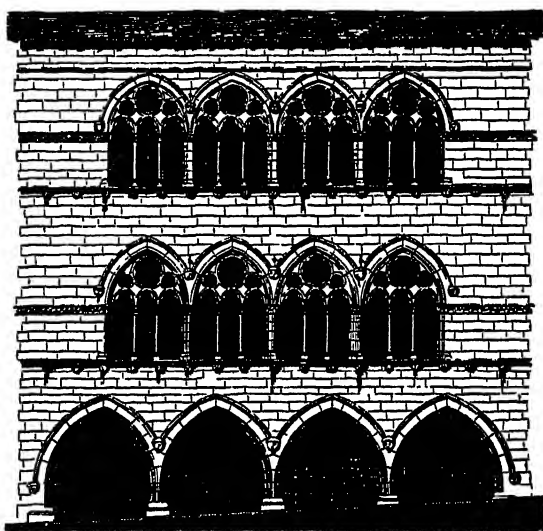
The second (Woodcut No. 672) represents a house at Yrieix, and shows the pointed Gothic style in its period of greatest development; and although the openings are of larger extent than would be convenient in this climate, they are not more so than would be suitable, while they give, in the South of France, great lightness and elegance to the façade. The third example is from the portal of the Ducal Palace



671. House at Cluny. (From Gallhabaud.)

at Nancy (Woodcut No 673), and is an instance of the form the style took when on the verge of the Renaissance. It is not without elegance, though somewhat strange and unmeaning, and, except as regards the balconies, the parts generally seem designed solely for ornament without any constructive or utilitarian motive.

One of the most extensive as well as one of the best specimens of French domestic architecture is the house of Jacques Cœur, at Bourges, now used as the town-hall. It was built by the wealthy but ill-used banker of Charles VII., and every part of it shows evidence of careful design and elaborate execution, it was erected too at an age before the style had become entirely debased, and as



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House at Yrieix (From Gailhabaud)

a private residence situated in a town, and therefore without any attempt at fortification, is the best that France now possesses.

The château of Meilhan (Cher) is nearly a repetition of the same design, but at least a hundred years more modern.

Rouen possesses several examples of domestic architecture of a late date; so does Paris—and among others, the celebrated Hôtel de Cluny. Few of the great towns are however without fragments of some sort, but hardly any are of sufficient importance to deserve separate notice or illustration.

France is not so rich as either Germany or England in specimens of castellated architecture. This does not apparently arise from the fact of no castles having been built during the Middle Ages, but rather from their having been pulled down to make way for more convenient dwellings after the accession of Francis I., and even before his time,

when they had ceased to be of any use. Still the châteaux of Pierrefonds and Coucy are in their own class as fine as anything to be found elsewhere. The circular keep of the latter castle is perhaps unique, both from its form and dimensions, but being entirely gutted inside its architectural features are gone, and it is now difficult to under-



673.

Portal of the Ducal Palace at Nancy. (From Dusomerard.)

stand how it was originally arranged, and by what means it was lighted and rendered habitable.¹

Tancarville still retains some of the original features of its fortifications, as do also the castles of Falaise and Gaillard.

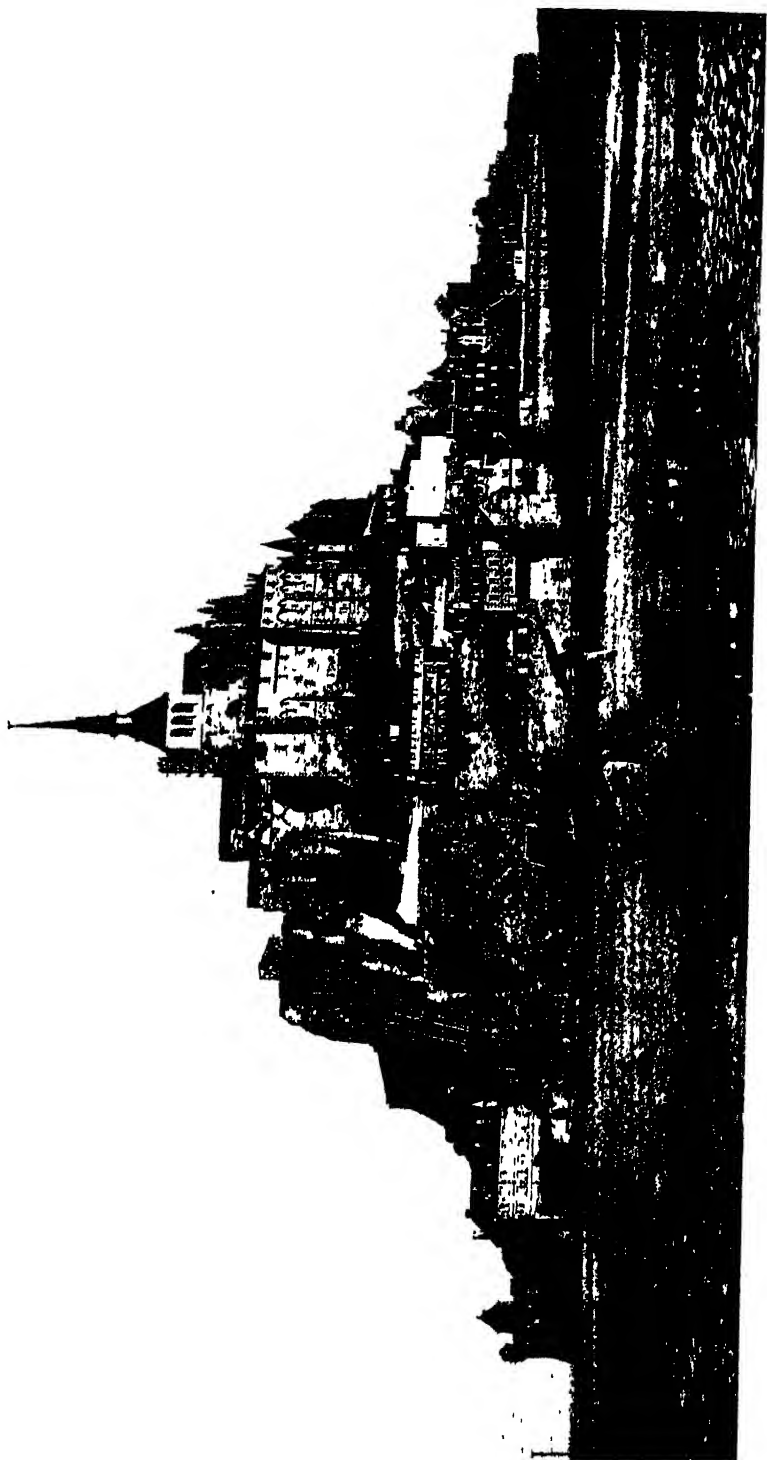
The keeps of Vincennes and Loches are still remarkable for their

¹ Viollet le Duc, in his 'Architecture Militaire,' p 96, gives a section of the Donjon at Coucy, which, however, by no means explains how the interior was lighted, nor does it accord with what I believe I saw there.

height, though they hardly retain any features which can be called strictly architectural. In the South, the fortified towns of Carcassonne and Aigues Mortes, and in the North, Fougères, retain as much of their walls and defences as almost any place in Europe. The former in particular, both from its situation and the extent of its remains, gives a singularly favourable and impressive idea of the grave majesty of an ancient fortalice. But for alterations and desecrations of all sorts, the palace of the popes at Avignon would be one of the most remarkable castles in Europe even now its extent and the massiveness of its walls and towers are most imposing.

These are all either ruins or fragments, but the castle of Mont St. Michel, in Normandy, retains nearly all the features of a Mediæval fortress in sufficient perfection to admit of its being restored, in imagination at least. The outer walls still remain, encircling the village, which nestles under the protection of the castle. The church crowns the whole, and around it are grouped the halls of the knights, the kitchens and offices, and all the appurtenances of the establishment, intermingled with fortifications and defensive precautions that must have made the place nearly impregnable against such engines of war as existed when it was erected, even irrespective of its sea-girt position.

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MONT ST. MICHEL

BOOK IV.

BELGIUM AND HOLLAND.



CHAPTER I.

CONTENTS.

Historical Notice—Old Churches—Cathedral of Tournay—Antwerp—St. Jacques at Liège

THE little kingdom of Belgium forms an architectural province as distinct and in many respects as interesting as any in Europe. Its style does not, it is true, possess that simplicity combined with grandeur which characterises the one great united effort of Central France, but it is more varied and picturesque, and as fully expressive of the affinities and aspirations of the people.

As we may learn from their language, the dominant race during the Middle Ages spoke a dialect very closely allied to the pure German, which proclaimed their affinity to their neighbours on the Rhine; but what their architecture tells us, though their language does not, is that there was a very strong infusion of Celtic blood in their veins which expresses itself in almost every building they erected.

Shortly after the departure of the Romans the German immigrants seem to have completely overpowered the original Belgæ, and, like true Aryans, to have divided themselves into a number of separate and independent municipalities, with no established capital and acknowledging no central authority.¹ At times these communities did submit themselves to the rule of Dukes and Counts, but only to a very limited extent; and for particular purposes they occasionally even sought the protection of some powerful monarch; but they never relinquished their right of self-government nor fell under the power of feudal chiefs, or of a dominant hierarchy, to the same extent as prevailed throughout nearly the whole of the rest of Europe. This spirit of independence was sustained throughout the Middle Ages by the immense extension of commercial industry which the fortunate

position of Belgium, combined with the energy of her inhabitants, enabled her to develop. While the rest of Europe was engaged in feudal wars and profitless crusades, the peaceful burghers of the Belgian cities were quietly amassing that wealth which gave them individually such importance as free citizens of independent communities, and raised their towns, and eventually their country, to the state of prosperity it maintained till the destruction of their liberties by the Spaniards in the 16th century.

These historical circumstances go far to explain the peculiar character observable in the architectural remains of this country, in which we find no trace of any combined national effort. Even the epoch of Charlemagne passed over this province without leaving any impress on the face of the country, nor are there any buildings that can be said to have been called into existence by his influence and power. The great churches of Belgium seem, on the contrary, to have been raised by the individual exertions of the separate cities in which they are found, on a scale commensurate with their several requirements. The same spontaneous impulse gave rise to the town-halls and domestic edifices, which present so peculiar and fascinating an aspect of picturesque irregularity.

Even the devastation by the Normans in the 9th and 10th centuries seems to have passed more lightly over this country than any other in the North of Europe. They burned and destroyed indeed many of the more flourishing cities, but they did not occupy them, and when they were gone the inhabitants returned, rebuilt their habitations, and resumed their habits of patient self-supporting labour, and when these inroads ceased there was nothing to stop the onward career of the most industrious and commercial community then established in Europe.

In a historical point of view the series of buildings is in some respects even more complete than the wonderful group we have just passed in review in France. In size, the cathedrals of Belgium are at least equal to those that have just been described. In general interest, no cathedral of France exceeds that of Tournay, none in gorgeousness that of Antwerp, and few surpass even those of Louvain, Mechlin, Mons, Bruges and Ghent. Notwithstanding their magnificence, however, it must be confessed that the Belgian cathedrals fail in all the higher requisites of architectural design when compared with those on the southern border. This was owing partly to the art never having been in the hands of a thoroughly organised and educated body of clergy like that of France, but more to the ethnographic difference of race, which in the first place prevented centralisation, and also rendered them less keen in their appreciation of art, and less influenced by its merits. From these and other causes, their ecclesiastical buildings do not display that elegance of proportion, and

that beauty of well-considered and appropriate detail, which everywhere please and satisfy the mind in contemplating the cathedrals of France.

These remarks apply solely to ecclesiastical art. In specimens of the civil and domestic architecture of the Middle Ages, Belgium surpasses all the other countries of Europe, on this side of the Alps, put together. Her town-halls and markets, and the residences of her burghers, still display a degree of taste and elegance unsurpassed by anything of the age, and remain to this day the best index of the wealth and independence of the communities to which they belonged.

All this is of course only what might be expected from what we know of the ethnographic relations of the people. An Aryan race, loving independence, cultivating self-government, and steadily following those courses which lead to material well-being and wealth; and underlying these a Celtic race, turbulent at times, loving art, appreciating its beauties, and clothing the municipal requirements with the picturesque graces of architectural design.

The difference between this country and Central France appears to be that in the latter country the Celtic element was in excess of the Aryan, while in Belgium this condition was reversed, and this at least is precisely what we find expressed in her art.

Of the oldest churches of Belgium, a large proportion are known to us only by tradition, they having been pulled down to make way for the larger and more splendid buildings which were demanded by the continually increasing wealth and population of the cities. Of those which remain, one of the oldest and most interesting is that of St. Vincent at Soignies, built in 965 by Bruno, Archbishop of Cologne, and though probably not quite finished within that century, it still retains the features of the 10th century more completely than almost any church in Europe. This church, that of St. Michele at Pavia, and the Minster at Zurich, constitute a trio very similar to one another in design and in size, and differing principally in the degree of finish they display, this being by far the rudest in construction of the three. It possessed originally a western tower and a central lantern, the upper parts of both which are modernised. The east end was square, though possessing a shrine, the tomb of the saint whose name it bears. It may have been altered, and is built up on the outside so as to render examination impossible.

Another church, only slightly more modern, that of St. Gertrude at Nivelles (Woodcut No. 674), presents the same peculiarity, of having a square termination towards the east, though it seems originally to have had an apse at the west end, where the façade was carried up to a considerable height, and adorned in the centre by a

square tower flanked by a circular one on each side. The latter retain their original form, though the central tower was rebuilt in the 15th century. This church was built in the earliest years of the 11th century, and was dedicated in 1045, the Emperor Henry IV. assisting at the ceremony. It is a first-class church with two transepts, and remains externally in all essential particulars as then built. The interior was entirely destroyed in the middle of the last century, which is a very great loss, although the new arrangement which has replaced it is in itself remarkably well designed

Passing over some minor examples, we come to the cathedral of Tournay, to the architect and artist the most interesting of the province. It is a first-class cathedral, more than 400 ft. in length



674

View of West End of Church at Nivelles.
(From a sketch by the Author)

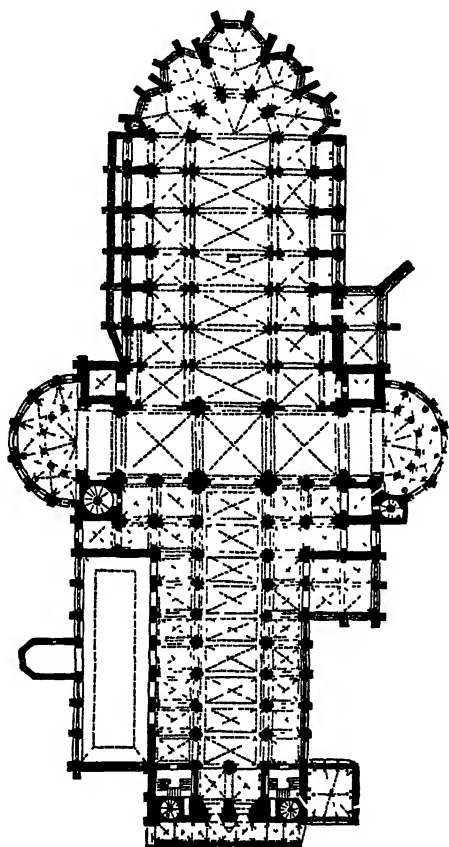
internally, and covering with its dependencies an area of 62,525 ft. It consists of a nave, dedicated in 1066; of a transept, built about the year 1146; the choir, which formed part of this arrangement, was dedicated in 1213, but gave place about a century afterwards to that now standing, which was dedicated in 1338, so that within itself it contains a complete history of the style; and though there is no

doubt considerable incongruity in the three specimens here brought together, as they are the best of their respective classes in Belgium, the effect is not unpleasing, and their arrangement fortunate, inasmuch as, entering by the western door, you pass first through the massive architecture of the 11th to the bolder and more expanded features of the 12th century, a fitting vestibule to the exaggerated forms which prevailed during the 14th. In the woodcut (No. 676) the three styles are represented as they stand; but it would require far more elaborate illustration to do justice to the beauty of the deeply galleried nave, which surpasses any specimen of Norman architecture, but which is here eclipsed by the two remaining apses of the transept. These, notwithstanding a certain rudeness of detail, are certainly the finest productions of their age, and are as magnifi-

cent pieces of architecture as can be conceived. The choir is the least satisfactory part of the whole, for though displaying a certain beauty of proportion, and the most undoubted daring of construction, its effect is frail and weak in the extreme. Still, if the tracery were restored to the windows, and these filled with painted glass, great part of this defect might be removed. At the best, the chief merit of this choir is its clever and daring construction, but even in this the builder miscalculated his own strength, for it was found necessary to double the thickness of all the piers after they were first erected. This addition would have been an improvement if it had been part of the original design, but as it now is it appears only to betray the weakness which it was meant to conceal.

It is by no means clear that originally there were any entrances at the west front; at least there certainly was no central doorway; and probably the principal entrances were, as in most German churches, under lateral porches.

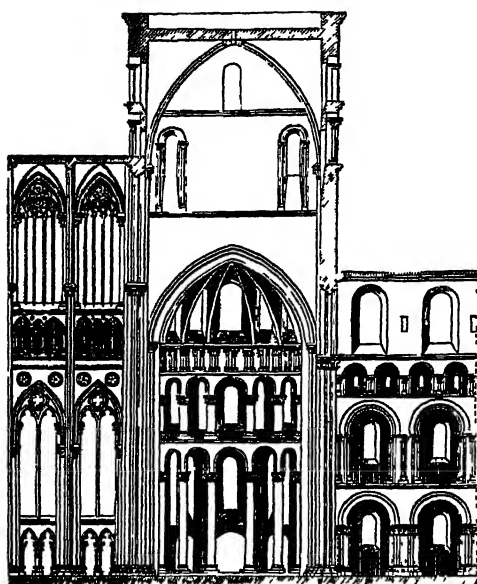
Externally, the west front had neither the flanking towers of the Norman church, nor the frontispiece usual in Germany, but



675 Plan of Cathedral at Tournai Scale 100 ft. to 1 in

terminated in a gable the height of the wooden roof of the nave. The original church was triapsal, and a large square tower adorned the intersection of the nave and transept, which was originally surrounded by six tall square towers, two belonging to each of the apses. Four of these still exist, and with the remaining part of the central tower form as noble a group as is to be found in any church of this province. In its triapsal state, its superior dimensions and the greater height of its towers must have rendered it a more striking building than even the Apostles' Church at Cologne, or indeed any other church of its age.

Besides the churches already described, there are a considerable



676. Section of Central Portion of Church at Tournay, looking South. Scale 50 ft. to 1 in



677. West Front of Notre Dame de Maestricht. (From Schayes' 'Belgium'.)

number in Belgium belonging to the 11th century, such as St. Bartholomew at Liège; St Servin's, Maestricht; the church at Ruremonde (almost an exact counterpart of the Apostles' Church at Cologne), and others of more or less importance scattered over the country. They almost all possess the peculiarity of having no entrance in their west fronts, but have instead a massive screen or frontispiece surmounted by two or three towers. This was the arrangement of the old church of St Jacques at Liège. The church of Notre Dame de Maestricht presents a somewhat exaggerated example of this description of front (Woodcut No. 677). It is difficult to explain the origin of this feature, nor have we any reason to regret its abandonment. There can be no doubt that the proper place for the principal entrance to a church is the end opposite the altar, where this screen prevented its being placed.

Among the smaller antiquities of this age, none are perhaps more interesting than the little chapel of St. Sang, at Bruges, built by Thierry of Alsace, on his return from the Holy Land, A.D. 1150; it is a



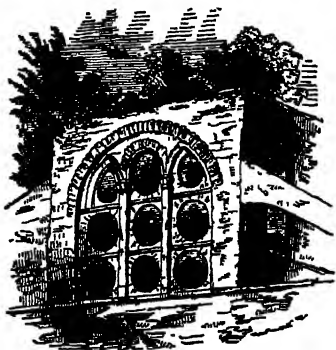
CHURCH OF SAINT-GUDULE, BRUSSELS

small double chapel, of a form very common in Germany, but less ornate than these generally were. At one angle of it are two spires, represented in Woodcut No. 678, the more slender of these would not excite remark if found in Cairo or Aleppo, so exactly does it take the Eastern form, the other, on the contrary, seems to belong to the 16th or 17th century. it is only one, however, of the numerous instances that go to prove how completely art returned, at the period called the Renaissance, to the point from which it started some four or five centuries earlier. It returned with something more of purity of detail and better construction, but unfortunately without that propriety of design and grandeur of conception which mark even the rude buildings of the first *naissance* of Gothic art.

Belgium is rich in small specimens of transitional architecture, and few of her more extensive ecclesiastical establishments are without some features of this class, often of great beauty. Their age has not yet, however, been determined with anything like precision by the Belgian antiquaries; but on the whole, it seems that in this, as in most other respects, this country followed the German much more closely than the French type, hesitating long before it adopted the pointed arch, and clinging to circular forms long after it had been employed elsewhere, oscillating between the two in a manner very puzzling, and rendering more care necessary in determining dates than in most other parts of Europe. Besides this, none of the Belgian buildings have yet been edited in such a manner as to afford materials for the establishment of any certain rule. Perhaps the most interesting specimen of the transitional period, and certainly one of the most beautiful ruins in the country, is the abbey church of Villers, near Genappe, a building 338 ft. in length by 67 in width, built with all the purity of what we would call the Early English style, but with a degree of experimental imperfection in the



678. Spire of the Chapel of St Sang, Bruges. (From a Sketch by the Author.)



679 Window in Church at Villers, near Genappe. (From a Sketch by the Author.)

tracery of which I hardly know an example elsewhere. The representation given above (Woodcut No 679) of one of the windows of the transept will explain this, throughout it the tracery consists of holes cut into slabs, yet this church is said to have been commenced in 1240, and only finished in 1276. In Germany such a date would be probable, in France a similar specimen would be assigned to a period from 70 to 100 years earlier

Among the many efforts made in Belgium to get rid of the awkwardness of the pointed form for windows was that in the choir of Notre Dame de la Chapelle, at Brussels (begun 1216), where the circular tracery is inserted in a circular-headed window, producing a much more pleasing effect, both internally and externally, than the pointed form, except with reference to the vault, with which it is so little in accordance that the experiment seems to have been abandoned, and no attempt made afterwards to renew it

Besides those already mentioned, Belgium possesses about twenty first-class churches of pointed architecture, all deserving attentive consideration, some of them being almost unrivalled edifices of their class. Among the earliest of these is the cathedral of Liège, begun in 1280, exhibiting the style in great purity. It has no western entrance, but, like St. Croix, St. Jacques, and all the principal churches of this city, is entered by side porches.

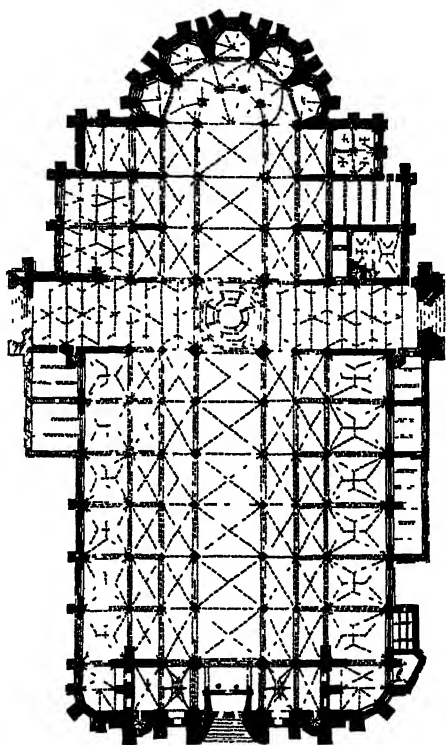
A little later we have the eastern parts of St. Gudule, Brussels (A.D 1220-1273), and two other very beautiful churches: Notre Dame de Tongres (1240), and St. Martin, Ypres (1232-70). The latter is perhaps the purest and best specimen of the Gothic of the 13th century in Flanders, and of about the same age is the beautiful church of N. D. de Dinant. These are almost the only important specimens of the contemporary art of the 13th century which still excite our admiration in all the principal cities of France. Almost all the great cathedrals in that country belong to this age, which was also so prolific of great buildings in England. But Belgium does not seem to have shared to any great extent in the impulse then given to church architecture. Her buildings are spread pretty evenly over the whole period from the 10th to the 16th century, as the steadily growing wealth of the country demanded them, and but little influenced by the great political oscillations of her neighbours. In the next century we have N. D. de Huy (1311), the beautiful parish church at Aerschot (1337), and N. D. de Hal (1341)—small but elegant places of worship. The two crowning examples, however, of this age are N. D. of Antwerp (1352-1411), and St. Rombaut, Malines. The choir of this latter church was dedicated in the year 1366, having been commenced about the same time as that at Antwerp, but the nave was not erected till a century afterwards (1456-1464), and the tower was not carried even to its present height till the 16th century.

Antwerp cathedral is one of the most remarkable churches in Europe, being 390 ft. long by 170 in width inside the nave, and covering rather more than 70,000 sq ft. As will be seen by the plan (Woodcut No. 680), it is divided into seven aisles, which gives a vast intricacy and picturesqueness to the perspective; but there is a want of harmony among the parts, and of subordination and proportion, sadly destructive of true architectural effect, so that, notwithstanding its size, it looks much smaller internally than many of the French cathedrals of far smaller dimensions. If the length of the nave had been divided into ten bays instead of only six, and the central aisle had been at least 10 ft. wider, which space could easily have been spared from the outer one, the apparent size of the church would have been greatly increased; but besides this, it wants height, and its details show a decadence which nothing can redeem.

Its magnificent portal, with its one finished tower 406 ft. in height, was commenced in 1422, but only finished in 1518, and is more in accordance with the taste of the 16th century than of the original design. Although from the lateness of its date it is impossible to be satisfied either with the outline or the detail, it is still so gorgeous a specimen of art, and towers so nobly

over the buildings of the city, as to extort our admiration, and a man must have very little feeling for the poetry of art who can stop to criticise it too closely.

The spire at Chartres (Woodcut No. 627) is more elegant in outline, but the design of its base does not accord with that of the upper part, and its effect is injured by the great height of the building to which it is attached. That at Strasburg is very inferior in outline, so is St. Stephen's at Vienna, and it is not quite clear that the open-work spires of Freiburg and Cologne are not mistakes. The base of



680.

Plan of the Cathedral at Antwerp
Scale 60 ft to 1 in

the Antwerp spire is perfect in proportion and good in detail; the caprice begins only when near the top, where it constructively can do no harm, and is much less offensive than it would be lower down. It cannot be perfect, but taking it altogether it is perhaps the most beautiful thing of its kind in Europe.

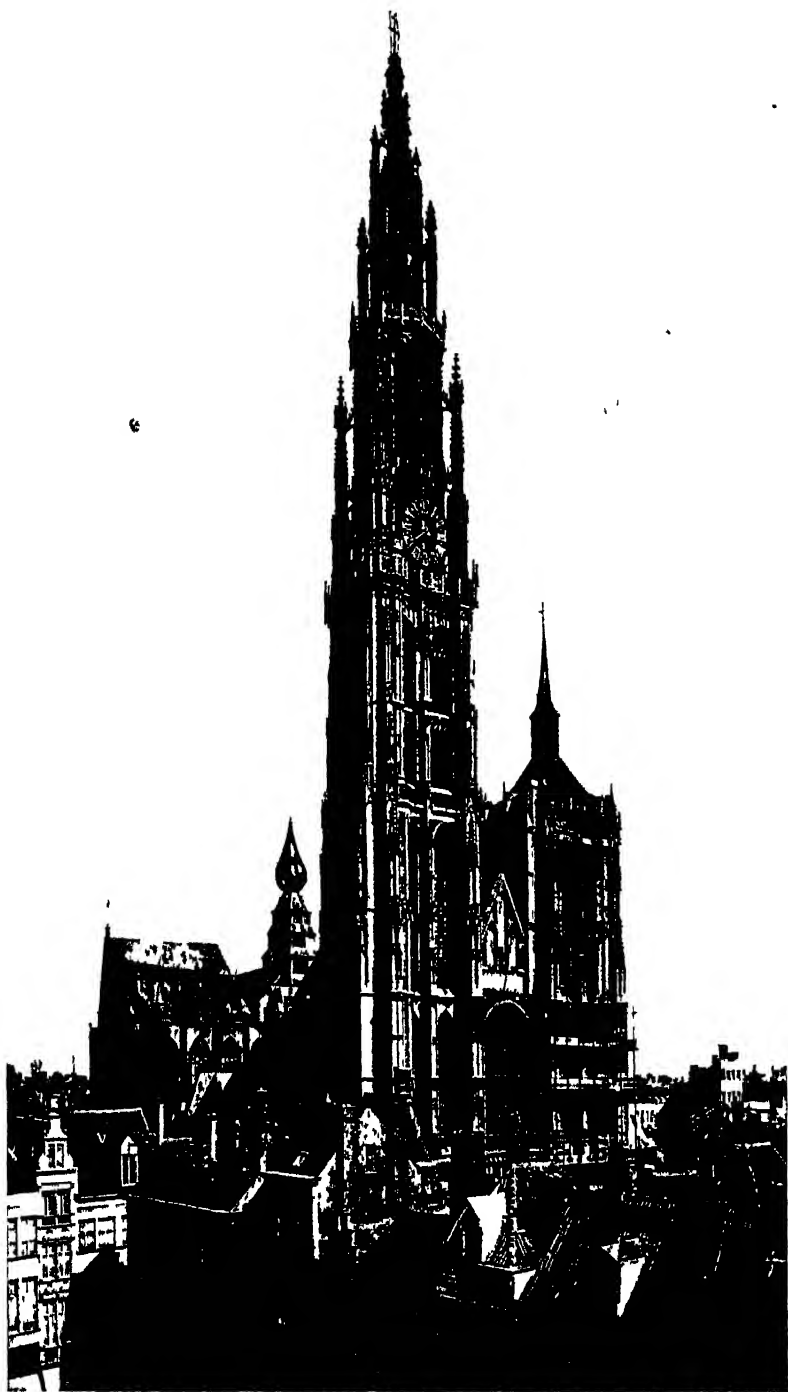
It is a great question if the second spire, were it completed as originally designed, would add to, or detract from, the beauty of the composition. An unfinished design is always displeasing, but, on the whole, twin spires, without a very prominent central object, do not seem a pleasing form of design.

The church of St. Rombaut at Malines, though very much smaller than that at Antwerp, being only 300 ft. in length internally, and, including the tower, only 385 ft. over all externally, is still a far more satisfactory church in every respect. Indeed, it is one of the finest of those which have round pillars in the nave instead of the clustered columns which give such beauty and such meaning to most of the churches of this age. It was originally designed to have one western spire, which, if completed, would have risen to the height of nearly 550 English feet. It was never carried higher than to the commencement of the spire, 320 ft., and at that height it now remains. Even as it is, it is one of the noblest erections of the Middle Ages, the immense depth of its buttresses and the boldness of its outline giving it a character seldom surpassed.

St. Pierre's, of Louvain, is a worthy rival of these two; for though perhaps a century more modern, or nearly so, it seems to have been built at once on a uniform and well-digested plan, which gives to the whole building a congruity which goes far to redeem the defects in its details. The façade, which would have rendered it the noblest building of the three, has never been completed. It was designed on the true German principle of a great western screen, surmounted by three spires, the central one 535 ft. in height, the other two 430 ft. each.¹

Where sufficient width can be obtained, this seems a legitimate and pleasing form of composition. Twin towers like those at Cologne or like those designed for Strasburg and Antwerp, would overpower any church, and are wanting in variety. Two small towers, with one taller between, is a more pleasing composition, though equally destructive to the effect of the building behind. The English plan of three spires, as at Lichfield, is by far the most pleasing arrangement, but this form the continental architects never attempted on an extensive scale, and consequently the single spire, as at Malines or Ulm, is perhaps the most

¹ A beautiful drawing of this façade in stone, from which the intended effect to a very large scale still exists in the town-hall of the city, as well as a model may be seen.

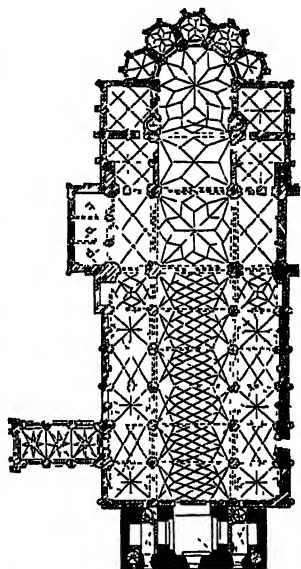


CATHEDRAL OF ANTWERP

satisfactory solution of the difficulty. If not that, then the triple-spired façade designed for Louvain would probably be the best.

Those above enumerated are certainly the finest specimens of Belgian ecclesiastical art. Almost all the churches erected afterwards, though some of them very beautiful, are characterised by the elaborate weakness of their age. Among these may be mentioned St Gommaire at Lierre, commenced A.D. 1425, but not completed till nearly a century afterwards; and St Jacques at Antwerp, a large and gorgeous church, possessing size and proportion worthy of the best age, but still unsatisfactory, from the absence of anything like true art or design pervading it. The same remarks do not apply to St. Waudru at Mons, 1450–1528, one of the very best specimens of its age—pleasing in proportion and elegant in detail. Internally a charming effect of polychromy is produced by the cold blue colour of the stone, contrasted with the red-brick filling-in of the vault; this contrast being evidently a part of the original design. By some singular freak of destiny it has escaped whitewash, so that we have here one instance at least of a *true* mode of decoration, and to a certain extent a very good one. The exterior of this church is also extremely pleasing for its age. Its tower and spire are unfortunately among those that we know only from the original drawings, which are still preserved, and show a very beautiful design.

Of about the same age (1522–1558) is St. Jacques at Liège (Woodcut No 681),^{681.} a church of the second class in point of size, being only 254 ft. in length internally, by 92 ft. across the nave. At the west end it still retains the screen of the old church, marked darker on the plan. The principal entrance is a splendid porch of flamboyant design on the north. The east end may be said to be a compromise between the French and German methods, for it is not a true chevet, inasmuch as it has not the circumscribing aisle, while its circle of chapels prevents its being considered as a German apse. Altogether the plan is characteristic of its locality on the borders of France and Germany, for in it we find mixed together most of the peculiarities of both countries. For its age too the details are generally good, but as construction was no longer the ruling motive, confusion is the result. The most remarkable thing about the church is, that it is one of the very few



681. Plan of St Jacques, Liège
(From Weale's 'Architectural Papers')
Scale 100 ft to 1 in.

churches in Europe which retain their polychromatic decorations in anything like completeness, especially on the roof. The paintings, however, are of late date, bordering on the cinque-cento period ; yet the effect produced, though gorgeous, is remarkably pleasing and beautiful, and is in itself sufficient to set at rest the question as to the expediency of painting the vaults of churches, or leaving them plain. My own conviction is, that all French vaults were once painted to as great an extent as in this case. Our English architects often probably depended only on form and carving for effect, but on the Continent it was otherwise.

Of the remaining churches, St. Bavon's at Ghent, and St. Martin's at Liège, both commenced, as they now stand, in the middle of the 16th century, are among the most remarkable, and for their age are wonderfully free from any traces of the Renaissance. At the same age in France, or even in England, they would have been Italianised to a far greater extent.

There is scarcely a second-rate town or even a village in Belgium that does not possess a church of more or less importance of the Gothic age, or one at all events possessing some fragment or detail worthy of attentive study. This circumstance is easily explained from the fact that during the whole of the Mediæval period, from the 10th to the 16th century, Belgium was rich and prosperous, and since that time till the present comparatively so poor as to have had neither ambition to destroy nor power to rebuild. Considering its extent, the country is indubitably richer in monuments than France, or perhaps than any other country in Europe ; but the architecture is neither so good or satisfactory nor of so high a class.

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CHAPTER II.

CONTENTS

Civil Architecture—Belfries—Hall at Ypres—Louvain—Brussels—Domestic Architecture

WHATEVER opinion we may form as to her ecclesiastical edifices, the real architectural pre-eminence of Belgium consists in her civil, or rather her municipal buildings, which surpass those of any other country. None of these are very old, which is easily accounted for. The rise of commercial enterprise in Belgium, though early compared with other European nations, was more recent than the age of military and ecclesiastical supremacy, and men were consequently obliged to erect castles to protect their property against robbers, and churches for their religious wants, before they could think of council-halls or municipal edifices.

In the 12th century, when the monarchy of France was consolidating itself, the cities of Belgium were gradually acquiring that wealth and those rights and privileges which soon placed them among the independent and most prosperous communities of Europe. One of the earliest architectural expressions of their newly-acquired independence was the erection of a belfry. The right of possessing a bell was one of the first privileges granted in all old charters, not only as a symbol of power, but as the means of calling the community together, either with arms in their hands to defend their walls, to repress internal tumults, for the election of magistrates, or for deliberation on the affairs of the commonwealth. The tower too in which the bell was hung was a symbol of power in the Middle Ages, and, whether on the banks of the Scheldt or the Po, the first care of every enfranchised community was to erect a "tower of pride" proportionate to their greatness.

The tower moreover was generally the record-office of the city, the place where the charters and more important deeds were preserved secure from fire; and in a place sufficiently fortified to protect them in the event of civic disturbances.

All these uses have passed away, and most of the belfries have either fallen into neglect or been removed or appropriated to other purposes. Of those remaining, the oldest seems to be that of Tournay,

a fine tower, though a good deal altered and its effect destroyed by more modern additions

The belfry at Ghent was commenced in 1183, but the stone-work was only completed in 1337. In 1376 a wooden spire was placed upon it, making up the height to 237 ft. This was taken down in 1855 in order to complete the tower according to the original design, which, like that of most of the unfinished buildings of Belgium, has been carefully preserved. It has since been completed by the addition of an iron spire (375 ft.) painted to look like stone. The Woodcut No 682 is a reduction of the original drawing, which, though not so perfect as some others, gives a fair idea of what it was intended to be



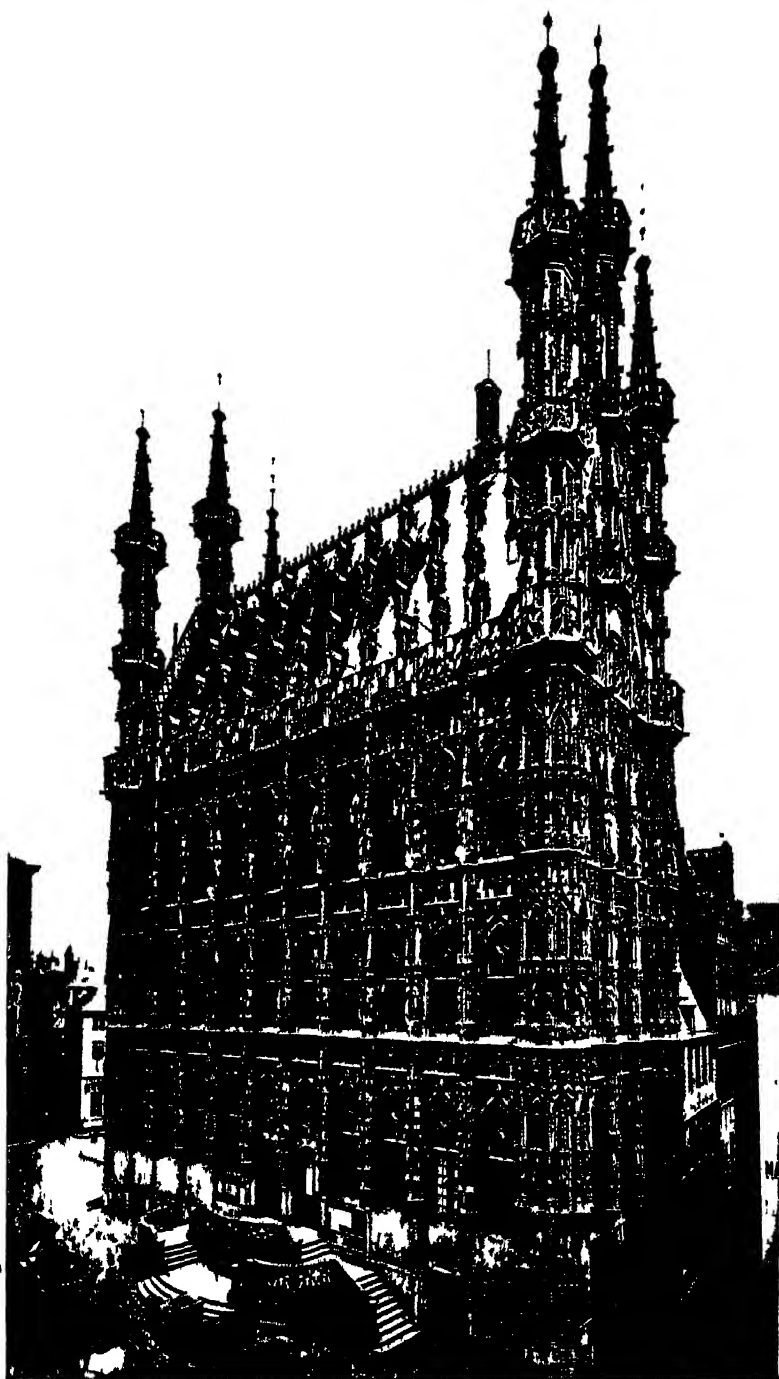
682 Belfry at Ghent
(From the original
Drawing)

The belfry of Brussels was one of the finest in the country, but after various misfortunes it fell in 1714, and is only known now by a model still preserved in the city.

At Ypres and Bruges the belfries form part of the great halls of the city. Those at Lierre, Nieuport, Alost, Furnes, and other cities, have been all more or less destroyed by alterations, and are more interesting to the antiquary than to the architect; moreover, like the cities themselves, they never could have been of the first class, or remarkable for any extraordinary magnificence.

The great municipal halls, which are found in all the principal cities of Belgium, are of three classes:—1. Town-halls—the municipal senate-houses and courts of justice. 2. Trade-halls or market-houses, the principal of which were cloth-halls, cloth having been the great staple manufacture of Belgium during the Middle Ages. And lastly Guildhalls, or the separate places of assembly of the different guilds or associated trades of the cities.

As far as existing examples go, it would appear that the trade halls were the first erected. The cloth-hall at Ypres is by far the most magnificent and beautiful of these, as also the earliest. The foundation-stone was laid in 1200 by Baldwin of Constantinople, but it was not finished till 104 years afterwards. The façade is 440 ft. in length, and of the simplest possible design, being perfectly straight and unbroken from end to end. The windows of each storey, all of one design, are repeated, not only along the whole front, but at each end. Its height is varied by the noble belfry which rises from its centre, and by a



TOWN HALL OF LOUVAIN

bold and beautiful pinnacle at each end. The whole is of the pure architecture of the 13th century, and is one of the most majestic edifices of its class to be seen anywhere. It might perhaps



683.

Cloth-hall at Ypres

have been improved by the greater degree of expression and the bolder shadows which lines brought down to the ground would have given to it, but as it is, it is extremely pleasing from its simplicity and

the perfect adaptation of its exterior to its internal arrangements. These consist of one vast hall on the ground-floor, supported by several ranges of columns, with long galleries and great halls above it for the use of the trade to which it was appropriated..

The town-hall at Bruges is perhaps the oldest building erected especially for that purpose in Belgium, the foundation-stone having been laid in 1377. It is a small building, being only 88 ft in front by 65 in depth, and of a singularly pure and elegant design. Its small size causes it to suffer considerably from its immediate proximity to the cloth-hall and other trade-halls of the city. These, grouped with the belfry in their centre, occupy one end of the great Place, and, though not remarkable for beauty, either of design or detail, still form a most imposing mass. The belfry is one of the most picturesque towers in the country. Its original height was 356 ft., which was diminished by about 60 ft by the removal of the spire in 1741, though it still towers above all the buildings of the city, and in that flat country is seen far and wide.

The finest of the town-halls of Belgium, built originally as such, is that of Brussels (Woodcut No. 684), commenced in 1401, and finished in 1455. In dimensions it is inferior to the cloth-hall at Ypres, being only 264 ft. in length by about 50 in depth, and its details, as may be supposed from its age, are less pure; but the spire that surmounts its centre, rising to the height of 374 ft, is unrivalled for beauty of outline and design by any spire in Belgium, and is entitled to take rank among the noblest examples of the class in Europe. Notwithstanding its late age, there is no extravagance, either in design or detail, about it; but the mode in which the octagon is placed on the square, and the outline broken and varied by the bold and important pinnacles that group around it, produce a most pleasing variety, without interfering with the main constructive lines of the building. The spire, properly so called, is small, so that its open-work tracery is pleasing and appropriate, which is more than can be said of some of its German rivals, in which this mode of ornamentation is quite unsuited to the large scale on which it is attempted.

Next in importance to this is the well-known and beautiful town-hall at Louvain (1448-1463), certainly the most elaborately decorated piece of Gothic architecture in existence. Though perhaps a little overdone in some parts, the whole is so consistent, and the outline and general scheme of decoration so good, that little fault can be found with it. In design it follows very closely the hall at Bruges, but wants the tower, which gives such dignity to those at Brussels and Ypres.

Towards the end of the same century (1481) the inhabitants of Ghent determined on the erection of a town-hall, which, had it ever been finished, would have surpassed all the others in size and richness,



though whether it would have equalled them in beauty is more than doubtful. After a century of interrupted labour the design was abandoned before it was more than two-thirds completed, and now that age has softened down its extravagances, it is a pleasing and perhaps beautiful building. Nothing, however, can exceed the extent of tormented and unmeaning ornament that is spread over every part of it, showing great richness certainly, but frequently degenerating into very bad taste. The architecture of the hall at Ypres, though only half or one-third as costly in proportion to its extent, is far nobler and more satisfactory than this ever could have been. But when erected the day of true art was past, and its place was sought to be supplied by extent of ornament.

The same remarks apply to the town-hall at Oudenarde, a building evidently meant as a copy of that at Louvain, but having combined with it a belfry, in imitation of that at Brussels. The result is certainly rich and pleasing in general effect; but the details incidental to its age (1525) have marred the execution, and given to the whole a clumsiness and a flimsiness that greatly detract from its beauty. Even the effect of the belfry is spoiled by the temptation to exhibit a masonic trick, and make it appear as if standing on the two slight pillars of the porch. It is clever, but apparent stability is as necessary to true architectural beauty as real stability is to the dignity of the art.

Among the smaller halls that of Mons is perhaps the most elegant, and is very similar to that of St. Quentin, which, though now in France, was a Flemish city at the time of its erection.

In the days of her magnificence Mechlin attempted the erection of a splendid hall, which was intended to rival those of any of the neighbouring towns. Civic troubles, however, put a stop to the work before it was carried so far as to enable us now even to determine what the original design may have been.

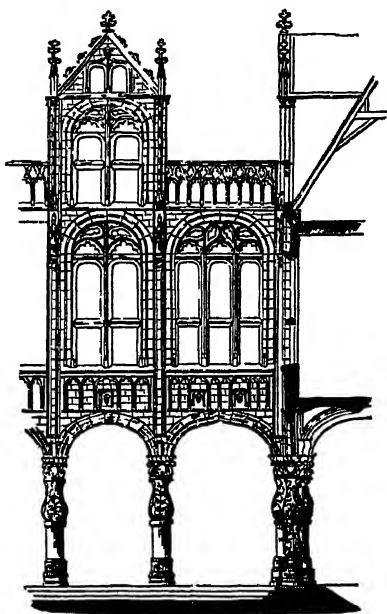
Among minor edifices of the same class may be mentioned the cloth-halls of Louvain and Ghent, both of the best age, though small; and the Boucheries or meat-markets of Diest, Ypres, Antwerp, and other towns—the boatman's lodge at Ghent and the burgesses' lodge at Bruges, besides numerous other scattered memorials of civic magnificence that meet one everywhere in this great emporium of Mediæval industry.

Of palaces, properly so called, little remains in Belgium, worthy of notice, unless it be the palace of the Bishop of Liège (Woodcut No. 685), which, as far as size and richness of decoration are concerned, almost deserves the reputation it has attained. It was, however, unfortunately commenced at an age (1508) when the Gothic style, especially in civil buildings, was all but extinct, and it is impossible to admire its stunted columns and flat arches in such immediate proximity to the purer works of the preceding centuries.

Of the same age and style was the Exchange at Antwerp (1515). This building was more pleasing in its details . and, though commenced a few years later, its simpler and more monumental character seems to have preserved it from the individual caprices which are apparent in the palace, and which became the fatal characteristic of all future designs. Neither of these buildings can, however, be called in strictness Gothic designs, for the true spirit of that art had perished before they were commenced

Many of the private dwelling-houses in the Flemish cities are picturesque and elegant, though hardly rising to the grade of specimens of fine art ; but when grouped together in the narrow winding streets, or along the banks of the canals, the result is so varied and charming that we are inclined to ascribe to them more intrinsic beauty than they really possess as individual designs. Most of them are of brick, and the brick being used undisguisedly, and the buildings depending wholly on such forms as could be given to that material, they never offend our taste by shams ; and

the honest endeavour of the citizens to ornament their dwellings externally, meets here with the success that must always follow such an attempt. To exhibit this class of structures adequately would require far more illustration than is compatible with a work like the present, and would occupy the space that more properly belongs to buildings of a larger and more monumental class, and of higher pretensions to architectural effect, both in their design and the manner in which it is carried out.



685. Part of the Bishop's Palace, Liège No scale.

CHAPTER III.

HOLLAND

CONTENTS

Churches—Civil and Domestic Buildings.

THE moment we pass the boundary line which separates Belgium from Holland, we feel that we have stepped at once into a new architectural province. At last we have got among a people of pure Aryan or Teutonic race, without one trace of Turanian or Celtic blood in their veins, and who consequently carry out their architectural designs with a matter-of-fact simplicity that is edifying, if not charming. It is not that the kingdom of Holland is deficient in the possession of Mediæval churches—far from it—she possesses as many Gothic cathedrals as we do, and their average dimensions are equal to those which adorn this island, they belong also to the same age: but the result is wonderfully different.

The Dutch did not work out any part of the style for themselves; they attempted no novelties, and did not even give themselves the trouble to understand perfectly the style they were employing. They were then, as now, a religious people, and wanted churches, and built them according to the only pattern then available. No one can say that their churches were not perfectly adapted to the form of worship then prevalent, and in dimensions and dignity perfectly suited to the wants of the communities who erected them. Notwithstanding all this, they are only vast warehouses of devotion, and are utter failures as works of art.

If any one wishes to perfectly realise the difference between mere ornamental construction and ornamental construction which is also ornamented, he cannot do better than study carefully the design of these Dutch churches. Their dimensions are frequently grand, their proportions generally pleasing, and the subordination of the parts to each other often most judicious. On the other hand, the pillars of the pier arches are almost always round—the vaulting shafts poor, and never carried to a sufficient resting-place—the windows want mullions and tracery—the vaults are domed and stilted—the ribs lean—and

everything in fact is pared down as closely to mere utility as is possible in such a style. In France or in England, in the same age, every stone would have spoken out and had a meaning; and every detail would not only have been in its right place, but would have expressed the reason of its being there, and the purpose to which it was applied.

To the want of artistic feeling, or real knowledge of the style, which is shown in the designs of the Dutch churches, must be added the inferiority of the material in which they were carried out. Some are wholly of brick, and few are entirely of stone, though most of them have an admixture of the nobler material—and where brick is employed, without great care and artistic feeling, the result is generally poor and unsatisfactory.

Judged by their dimensions alone, the churches of Holland ought to be almost as interesting as those of Belgium, for they are generally large, with lofty and well-proportioned aisles, and transepts which project boldly. They have frequently tall and not ungraceful western towers, and sometimes large windows filled with good tracery, though mostly of a late age. Notwithstanding all these requisites of a perfect Gothic church, there is not one of them that must not be considered a failure, from the causes just mentioned.

These remarks apply especially to the great churches at Haarlem, Leyden, and Rotterdam, two at Amsterdam, and the two at Delft, the older of which contains some details worthy of attention. That at Gouda is remarkable for the beauty of its painted glass, though the architecture of the church is very unworthy of so brilliant an ornament.

The church at Dort is older than most of these, and has a venerable look about it that hides many of the faults of its architecture, but it will not bear examination.

The churches of Utrecht and Bois le Duc are to some extent exceptions to the general poverty of design which characterises the churches of Holland. This is owing probably to the situation of these two churches on the verge of the province, and their proximity to Belgium and Germany. That at Utrecht consists at the present day of merely two fragments—a choir and a tower, the nave that joined them having been destroyed by a storm and never replaced. What remains is good late German, though it is much disfigured by modern additions. The church at Bois le Duc is still a large and richly ornamented church, with a good deal of stone-work about it; but being too large for the decaying town in which it stands, it has suffered much from neglect, and is now in a very ruinous condition.

The church at Kampen, on the Zuyder Zee, is better than most others, and many of the smaller churches on the borders of the province are worthy of more attention than they have received. There

are few abbeys or monastic buildings of any importance to be found, such establishments never having been suited to the industrious character of the Dutch people

Bad as are the churches of Holland, the town-halls and civic buildings are even worse. With the single exception of the town-hall at Middelburg, erected in 1468 by Charles the Bold, Duke of Burgundy, and a fine example of its kind, there are none, in the whole of the Netherlands, which can be classed as works of fine art. Even age has been unable to render them tolerably picturesque, nor are there in the province any belfries with their picturesque forms, nor any palaces worthy of note, which belong to the Middle Ages. The older dwelling-houses are sometimes picturesque and pleasing, but less so than those of Belgium. Most of them are unpretending specimens of honest building, the result of which is often satisfactory, and combined, as they generally are in Dutch towns, with water and trees, and with the air of neatness and comfort which pervades the whole, we sometimes scarcely feel inclined to quarrel with the absence of higher elements of art when so pleasing a result has been produced without them.

Notwithstanding all this, it might be well worth while to give one or two examples of the plans and illustrations of some of the churches in Holland in a work like the present, not so much for their own sake, as for comparison with other buildings, but the materials do not exist. The Dutch have shown the same indifference to the conservation of their Mediæval monuments which their forefathers exhibited in their erection, and not one has been edited in modern times in such a manner as to admit of being quoted ¹ The history of this variety remains for the present to be written, but fortunately it is one of the least important of its class.

¹ A large work was commenced a few years ago on the church at Bois le Duc, but after the first numbers it seems to have been discontinued, and has not been since heard of—in this country at least [Since this was written a fine work in 8 vols, entitled 'Documents classés de l'art dans les Pays-Bas du x^{me}

au xviii^{me} Sièc'e,' and illustrated with ink photos, has been compiled by M Van Ysendyck, and although the greater number of the plates represent Renaissance work, some of the finest flamboyant Gothic buildings, both in Belgium and

BOOK V.

GERMANY.

CHAPTER I.

INTRODUCTORY.

CONTENTS.

Chronology and Historical Notice.

CHRONOLOGY.

	A.D.		A.D.
Charlemagne (Karl der Grosse) . . .	768 to 814	Frederick II.	Hohenstaufen 1215
Conrad I. of Franconia	911	Wilham of Holland	1247
Henry the Fowler . . . Saxon	919	Period of Anarchy	1256
Otho I.	936	Richard of Cornwall	1257
Otho II.	973	Alphonso of Castile	1258
Otho III.	983	Rudolph of Hapsburg	1273
Henry II.	1002	Adolph of Nassau	1292
Conrad II.	1024	Albert of Austria	1298
Henry III.	1039	Louis of Bavaria	1314
Henry IV.	1056	Charles of Luxembourg	1347
Henry V.	1106	Wenceslaus of Bohemia	1378
Lothaire III. of Saxony	1125	Rupert of the Palatinate	1400
Conrad III.	1138	Sigmund of Hungary	1410
Frederick I., Barbarossa	1152	Frederick III.	Hapsburg 1440
Henry VI.	1190	Maximilian I.	1493
Otho IV.	1198	Charles V.	1519 to 1556

As might be expected from the known difference of race, the history of architecture in Germany differs in the most marked degree from that of France, and instead of a number of distinct nationalities being gradually absorbed into one great central despotism, and their individuality obliterated, as happened in that country, we find Germany commencing as a great uniting power under Charlemagne and the Othos, but with a strong tendency to disintegration from first to last. Had the Germans been as pure Aryans as they are sometimes supposed to be, they might under certain circumstances have resolved themselves into an aggregation of village communities under one paramount protector. The presence of a Celtic dominion on their western frontier

always greedy for territory, and always prepared to fight either for its acquisition, or for anything else, prevented such a catastrophe as this. But the tendency in those parts of Germany where the blood was purest was towards every city becoming an independent community, every trade an independent guild, and every lordship a little kingdom in so far as independence was concerned. All this, however, was the natural tendency of the race, and by no means involved the cutting up of the country into separate architectural provinces. Had the country indeed been divided into 1000 or 1500 separate principalities and free cities, instead of one-tenth of that number, the uniformity would have been greater than it is, and from the Alps to the Baltic we should have had only one style, as was very nearly being the case during the Middle Ages. The greatest difference that strikes the observer at first sight, is the change of style between the buildings on the banks of the Rhine and those on the shores of the Baltic. This, however, is more superficial than real, and arose from the fact of no stone being found on the sandy plains of Prussia. The inhabitants of Northern Germany were forced to use brick, and that only, and consequently employed forms which were different from those used in stone countries, but varying from them constructively more than essentially. There may nevertheless be a certain infusion of Wendish blood in Northern Germany, which may to some extent have influenced the style, but it is not easy to trace or isolate it.

On the eastern boundary of the province a well-marked ethnographic distinction may easily be detected. In Bohemia and Moravia a strong infusion of Slavonic feeling does tincture the art, but not to its advantage. In these countries there are some very grand Gothic buildings; but they are wild and ill-understood as Gothic designs, and by no means satisfy the judgment of any one who is familiar with the best examples in France or England. In Siebenburgen,¹ as might be expected, the style is still more abnormal, but it would take more trouble and more illustration to describe it than its importance deserves; for, except the cathedral at Karlsburg, it does not possess any building of great architectural magnificence. Its general characteristic is that it is more Italian than German, though not the less interesting for that very reason.

The history of Gothic architecture in Germany began practically with Charlemagne and ended with Charles V. There may be some buildings erected before the date of the first-named king, but, if so, they are small and unimportant, and indeed it seems probable that the edifices left by the Romans sufficed for the early wants of the people. Some of these, like the church at Trèves, were built for Christian purposes;

¹ See two papers on this subject in *Erhaltung der Baudenkmale*, vol. ii. 'Jahrbuch der Central Commission zur' p. 65, and vol. iii. p. 149.

while others may have been in wood and have perished. Be that as it may, however, from the time of Charlemagne we can trace the history of the style with tolerable distinctness. A considerable impulse was given to it under the Othos (936-1002), and under the Hohenstaufens (1138-1268) the old round-arched style reached its culminating point of perfection. If any style deserves the name of German it is this, as it was elaborated in the valley of the Rhine, with very little assistance from any other nation beyond the hints obtained from the close connection that then existed between the Germans and the inhabitants of the valley of the Po.

With the house of Hapsburg (1273) a change came over the spirit of the country. What Germany did in the 18th century was only a repetition of what she had done in the 13th. At the later epoch she abandoned her native literature, almost her mother tongue—to speak French and to copy French fashions, as at the earlier epoch she forsook her own noble style of art to adopt the French pointed Gothic. Had she thoroughly understood and appreciated the French style, it might have been as well; but it was foreign to her tastes, she had never worked it out from the beginning, and it soon in consequence became exaggerated, and finally degenerated into a display of tricks and *tours de force*.

By a strange perversion of historical evidence, the Germans at one time attempted to appropriate to themselves the credit of the invention of the pointed style, calling it in consequence German architecture. The fact being that the pointed style was not only invented but perfected in France long before the Germans thought of introducing it; and when they adopted it, they did so without understanding it, and fell far short of the perfection to which it was carried by the French in all the edifices which they erected in the age of its greatest development in their own country.

On the other hand, the Germans may fairly claim the invention of the particular style which prevailed throughout Lombardy and Germany of which we are now speaking. This style, it is true, never was fully developed, and never reached that perfection of finish and completeness which the pointed style attained. Notwithstanding this it contained as noble elements as the other, and was capable of as successful cultivation, and had its simpler forms and grander dimensions been elaborated with the same care and taste, Europe might have possessed a higher style of Mediæval architecture than she has yet seen. The task, however, was abandoned before it was half completed, and it is only too probable now that it can never be resumed.

A complete history of this style, worthy of its importance, is still a desideratum which it is to be hoped the zeal and industry of German architects will ere long supply, and vindicate their national art from the neglect it now lies under, by illustrating as it deserves one of the

most interesting chapters in the history of architecture.¹ Already German writers seem to be aware that the age of the Hohenstaufens was not only the most exclusively national, but also the most brilliant period of their history. Its annals have engaged the pens of their best historians, and its poetry has been rescued from obscurity and commented upon with characteristic fulness. Every phase of their civilisation has been fully illustrated, except one—that one being their architecture, which is, however, the noblest and the most living record of what they did or aspired to do, that could be left for their posterity to study. So distinctly is it their own, that, were it necessary to find for it a separate name, the style of the Hohenstaufens would be that which would most correctly describe it.

The leading characteristics of the German style are the double apsidal arrangement of plan, the multiplication of small circular or octagonal towers, combined with polygonal domes, at the intersections of the transepts with the nave, and the extended use of galleries under the eaves of the roofs both of the apses and of the straight sides. The most ornamental parts are the doorways and the capitals of the columns. The latter surpass in beauty and in richness anything of their kind executed during the Middle Ages, and, though sometimes rude in execution, they equal in design any capitals ever invented. These only required the experience and refinement of another century of labour to qualify them to compete successfully with any parts of the pointed style of architecture which they borrowed from the French, and which in the course of time entirely superseded their own native style.

¹ The work of F. Osten on the architecture of Lombardy, and that of Geier and Gortz on the style in the Rhine country, combined with the works of Boisserée, have already furnished con-

siderable materials for such a history. Both these first-named works were left incomplete, the former owing to the death of the author. Consult the Appendix, note 7.

CHAPTER II

BASILICAS.

CONTENTS

Plan of St. Gall—Church at Mittelzell in island of Reichenau—Roman-Moutier—Granson—Church at Gerudo—Trèves—Hildesheim—Cathedrals of Worms and Spire—Churches at Cologne—Other churches and chapels—Double churches—Swiss churches.

ST. GALL.

As just mentioned, the history of Gothic architecture in Germany commences practically with Charlemagne; and, by a fortunate accident, we are able to begin our account of it by quoting from a contemporary illustration of the greatest interest and importance. In the library of the monastery of St. Gall, in Switzerland, a manuscript plan of a great monastic establishment was found by Mabillon in the 17th century, and published by him in the second volume of the 'Annals of the Benedictine Order.' The name of the author is not known; but, from some dedicatory verses on the back, it appears certain that it was sent to Gospertus, who was abbot of the monastery, in the beginning of the 9th century, and who in fact rebuilt the church and part of the monastic buildings between the years 820 and 830. Mabillon conjectures that the plan was prepared by Eginwald, the friend of Charlemagne, and who was also the director of his buildings. It is by no means improbable that this may have been the case, though it does not seem possible to prove it.

It is a matter of extreme difficulty to decide how far this plan was followed in the erection of either the church or monastery of St. Gall at this remote period, for everything there has been altered at subsequent times; nor is it very important to enquire. The plan does not pretend to represent any particular establishment, but is a "projet" of what was then considered a perfect monastery. In this respect it resembles the plans of fortified towns which are engraved in our books of fortification representing the systems of Vauban, Coehorn, Montalembert, &c., and which, though applicable *mutatis mutandis* to every place, have never literally been carried out in any one. It is in fact

an illustration of the Benedictine system, as applicable to Germany in the ninth century, in its completed and most perfect form, and on this account is far more interesting to us than if it had been merely a plan of any particular monastery.

The plan itself is on four sheets of parchment sewn together, and is so large (2 ft. 7 in. by 3 ft. 7 in.) that only a small portion of it can be reproduced here, and that on a reduced scale.

The whole group of buildings was apparently meant to occupy a space of about 450 ft. by 300. On the north side of the church was situated the abbot's lodging (b), with a covered way into the church, and an arcade on either face; his kitchen and offices being detached, and situated to the eastward. To the westward of this was the public school (c), and still farther in the same direction the hospitium or guest-house (d d), with accommodation attached to it for the horses and servants of strangers.

Beyond the abbot's house to the eastward was the dispensary (e), and beyond that again the residence of the doctor (f), with his garden for medical herbs and simples at the extreme corner of the monastery.

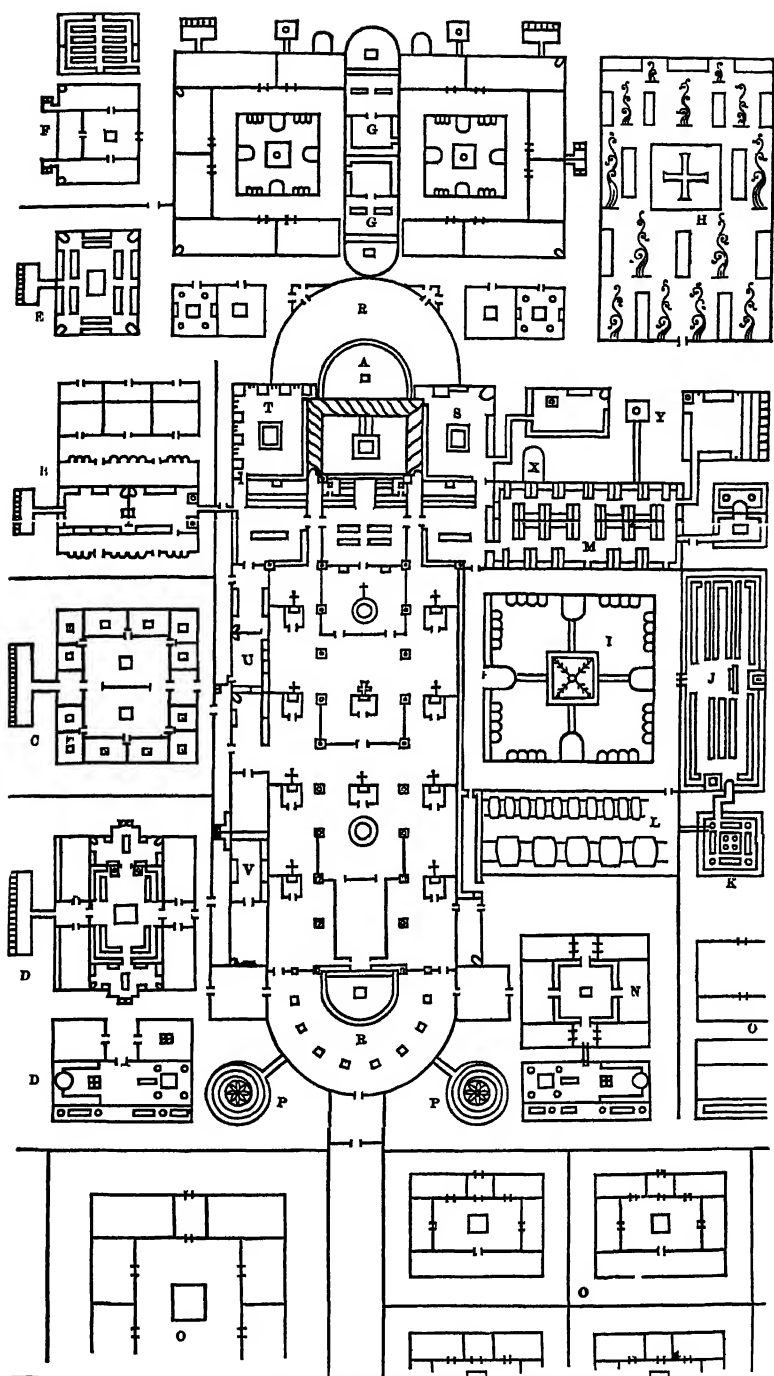
To the eastward of the great church was situated another small double-apse church (g g), divided into two by a wall across the centre.

On either side of this church was a cloister, surrounded by apartments: that on the north was the infirmary, next to the doctor's residence, and to it the western portion of the chapel was attached. The other was the school and residence of the novices. Beyond these was the orchard (h), which was also the cemetery of the monks; and still farther to the southward were situated the kitchen-garden, the poultry-yard, the granaries, mills, bakehouses, and other offices. These last are not shown in the woodcut, for want of space.

On the south side of the church was situated the great cloister (i), and further to the south of this was the refectory (j), with a detached kitchen (k), which also opened into the great wine-cellar (l); and opposite to this was the dormitory (m), with its various dependent buildings.

To the westward was another hospitium (n), apparently for an inferior class of guests; and to the southward and westward (o o) were placed the stables for horses, cattle, sheep, and all the animals required for so large an establishment, the whole arranged with as much skill and care as can be found in the best modern farms.

The principal point of interest is the church, which was designed to be 200 ft. long from east to west and 80 ft. in width, divided into three aisles by two rows of columns; the centre aisle being 40, the outer each 20 ft. in width. It has two apses; the principal one towards the east (A) has a vaulted crypt, in which is a confessio, meant to contain the relics of the patron saint, St. Gall. In front of this is a choir, arranged very much on the model of that of S. Clemente at Rome, before



described.¹ The western apse, on the same level as the floor of the church, was to be dedicated to St. Paul, and the eastern one to St. Peter. Between the two choirs is the font, and the altar of St. John the Baptist, and on each side are a range of altars dedicated to various saints. Behind both apses are open spaces or paradises (R R) (parvise), that to the west is surrounded by an open semicircular porch, by which the public were to gain access to the church; and on either side of this, but detached, are two circular towers (P P), each with an altar on its summit, one dedicated to the archangel Michael, the other to Gabriel: these were to be reached by circular stairs or inclined planes. No mention is made of bells, and the text would seem to intimate rather that the towers were designed for watch-towers or observatories. The similarity of their position and form to that of the Irish round towers is most remarkable, but whether this was in compliment to the Irish saint to whom the monastery owed its origin, or whether we must look to Ravenna for the type, are questions not easily determined at the present date, for we know far too little as yet of the archæology of the age to speak with certainty on any such questions. It is by no means improbable that the meaning and origin of these and of the Irish towers were the same; but whether it was a form exclusively belonging to a Celtic or Irish race, or common to all churches of that age, is what we cannot now decide from the imperfect data at our command.

On either side of the east end of the church is an apartment, where the transept is usually found; that on the south is the vestry (s); on the north is the library (x), and attached to the church on the same side is the schoolmaster's house (u), and beyond that the porter's (v).

All the living apartments have stoves in the angles, but the dormitory has a most scientific arrangement for heating; the furnace is at (x), and the smoke is conveyed away by a detached shaft at (r), between which there must have been some arrangement of flues beneath the floor for heating the sleeping-apartment of the monks.

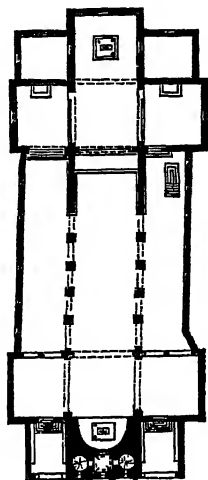
Were it not that the evidence is so incontrovertible, we should feel little inclined to fancy that the monasteries of this dark age showed such refinement and such completeness as is here evidenced; for at no period of their history can anything more perfect be found. In the church especially, the two apses, the number of altars, the crypt and its accompaniments, the sacristy, the library, &c., many of which things have generally been considered as the invention of subsequent ages, are marked out distinctly and clearly, as well-understood and usual arrangements of ecclesiastical edifices. This plan in fact refutes at once all the arguments regarding the dates of churches which have

¹ See vol. 1. p. 513.

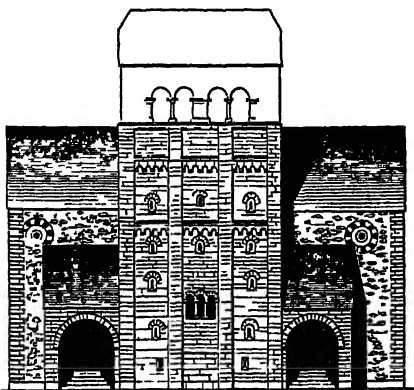
been founded on the supposed era of the introduction of these accessories.

By another fortunate coincidence there is a church still standing at Mittelzell, on the island of Reichenau, in the lake of Constance, within thirty miles of St. Gall, which certainly belongs to this date, and is unaltered in nearly all its principal features. It was finished, or at least dedicated, in the year 816, and therefore this event took place just before the rebuilding of St. Gall commenced.¹

As will be seen from the plan (Woodcut No. 687) the dimensions of the two churches are nearly the same; on the St. Gall plan they are written 200 ft. by 80. This church is 230 by 83 English feet, but the eastern² apse has been rebuilt on a more extended scale, and if we restore its original circular forms, we bring its dimensions so nearly to those of the St. Gall plan that, if its author used what we now know as French feet, the dimensions of the two may be considered as identical. The pier-arches of the nave are plain, and the whole arrangement is not unlike that of the nave of Montier-en-Der (Woodcut No. 610). One of the most remarkable peculiarities of the Reichenau church is the door behind the altar in the western apse, and the great window looking into it, with double stairs which lead up to it, as though the bishop's throne was placed there above the heads of all. The two principal entrances were, as shown in Woodcut No 688, on each side of the western apse, and the whole of the elevation—in so far as it is preserved—retains the original design. Although retaining the wooden roof, and never apparently intended to be vaulted, this church is purely Romanesque in all its details. There is not a classical feature



687. Plan of Church at Mittelzell
Scale 100 ft to 1 in.



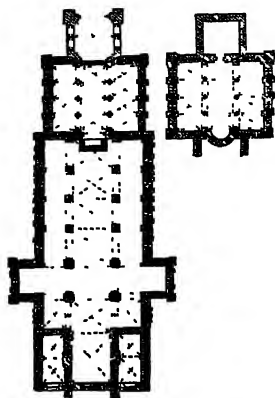
688 Elevation of West End of Church at Mittelzell.
Scale 50 ft. to 1 in.

¹ All the particulars regarding this church are taken from Hubsch, 'Alt-christliche Bauwerke,' pp. 109, xlx Dohme ascribes the church to the 11th

century, and gives the length as 283 ft

² That shown in the woodcut is a suggestion of Dr Hubsch.

about it, and we are rather startled to find a Barbarian style so complete at so early an age, and so far removed from anything that could with propriety be called debased Roman¹



689. Plan of the Church at Romain-Moutier. (From Blavignac.²)
Scale 100 ft. to 1 in.

There are other churches in this neighbourhood scarcely less ancient in date than this one at Mittelzell, and almost as interesting in their arrangement. Among these may be mentioned that of Romain-Moutier, the body of which certainly remains as it was when consecrated in the year 753. The narthex, which is in two storeys, may be a century or two later, and the porch and east end are of the pointed style of the 12th or 13th century. The vaulting of the nave also can hardly be coeval with the original building.

From other examples in the neighbourhood, we may safely infer that it originally terminated eastward in one or three apses. Supposing these to be restored, we have a church of about 150 ft. in length by 55 in width across the nave, with transepts,



690.

View of the Church of Romain-Moutier. (From Blavignac.)

¹ If there are any remains of the monastic buildings at Reichenau it is extremely desirable that they should be examined, in order to see how far they accord with the St Gall plan. What if it should turn out to be a perfected plan

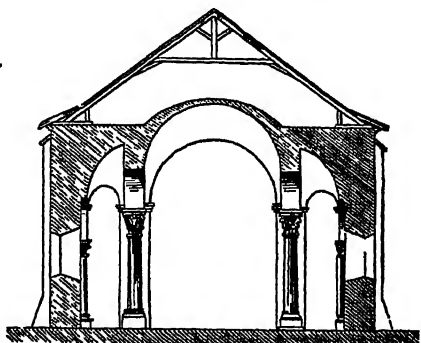
of Reichenau sent after its completion by the abbot Heiton to his friend Gospertus?

² 'Histoire de l'Architecture Sacrée du 4^{me} au 10^{me} Siècle dans les Evêchés de Genève, Lausanne, et Sion,' 1853.

a tower at the intersection, and nearly all the arrangements found at a much later age, and with scarcely any more reminiscence of the early Christian style than is observable at Mittelzell.

The external mode of decoration is very much that of the two churches of San Apollinare at Ravenna, but is carried one step further, inasmuch as in the upper storey of the nave each compartment is divided into two arches, the centre one carried on a corbel; in the tower there are three such little arches in each bay, and in the narthex five. This design afterwards became in Germany and Italy¹ the favourite string-course moulding.

The church of Granson, on the borders of the lake of Neufchatel, though much smaller, is scarcely less interesting. It belongs to the Carolingian era, and like many churches of that age, has borrowed its pillars and many of its ornaments from earlier monuments. Its most remarkable peculiarity is the vault of the nave, which shows how timidly at that early period the architects undertook to vault even the narrowest spans, the whole nave with its side-aisles being only 30 ft. wide. It is the earliest specimen we possess of a mode of vaulting which subsequently became very common in the South of France, and which, as has been pointed out above, led to most of the forms of vaulting afterwards introduced.



691. Section of Church at Granson. (From Blavignac)

The church of Notre Dame de Neufchatel, part of which is as old as from 927 to 954, presents also forms of beauty and interest. The same may be said of the tower of the cathedral of Sion, which is of the same age, and of parts also of the cathedral of Geneva.

The church at Payerne is very similar in size and in all its arrangements to that of Romain-Moutier; but being two centuries more modern, the transition is complete, and it shows all the peculiarities of a round-arched Gothic style as completely as San Michele at Pavia, or any other church of the same age.

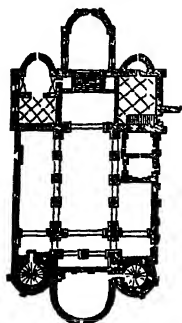
If there are any examples of basilican churches in Germany as old as these Swiss examples, they have not yet been described, nor their age satisfactorily ascertained. The oldest known example, so far as I am aware, is the old Dom at Ratisbon,² originally apparently about 45 ft.

¹ The earliest example is found in the Baptistery at Ravenna, 396 A.D.

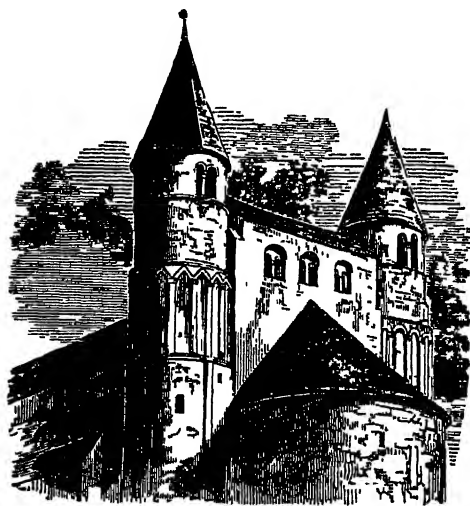
² Kallenbach, ('Deutsche Baukunst,') states that it was built by Bishop

Ganbald, 740-752. It is the chapel on the north side of cloisters of Cathedral (see 'King's Study Book,' vol ii. p. 81).

by 22 in the clear. It was surrounded internally by eleven niches, and vaulted. It also possessed the peculiarly German arrangement of having no entrance at the west end, and has a deep gallery occupying about one-fourth of the church. The lateral entrance is unfortunately gone, so that there is very little ornamental architecture about the place by which its age could be determined; and as no record remains of its foundation, we can only conjecture that it may belong to some time slightly subsequent to the Carolingian era.¹



692. Plan of the Church at Gernrode (From Puttrich²)



693. View of West End of Church at Gernrode. (From Puttrich)

Coblenz, and the churches at Michaelstadt and Seligenstadt, the two last erected by Eginwald, the biographer of Charlemagne.

¹ At Aquileja, at the upper end of the Adriatic Gulf, Poppo, the archbishop, between the years 1019-1042, erected a building almost identical with this in every respect between the old basilica and the baptistery, so as to make a double-apse church out of the old Lombard arrangement. The similarity

of the two buildings may probably bring down the date of that at Ratisbon to the 10th century

² 'Baukunst des Mittelalters in Sachsen.'

³ See Appendix, note 8

⁴ The church was burnt in 987, and is said to have had two choirs, a western transept, and eleven bays to the nave

The most important building of the tenth century is the crypt of the Abbey of Quedlinburg, erected by Matilda, consort of Henry I, in 936 A.D. It consists of three aisles, covered with parallel barrel vaults supported upon alternating piers and columns, and is the first appearance of this favourite form of support in German basilicas. The dimensions of this building are 23 feet 8 inches \times 22 feet 7 inches, and 32 feet 2 inches to the crown of vault.

The caps and bases take a distinctive form, leading from the debased Roman to the Romanesque, the further development of which can be seen in the choir of the abbey church at Essen, erected shortly after 947 A.D.

Leaving these, we must come down to the end of the 10th or beginning of the 11th century for examples of the class we are now speaking of. Of these, one of the most perfect and interesting is the church at Gernrode, in the Hartz, founded A.D. 960, when probably the eastern part (not the extended choir) was commenced, and the whole building may be assumed to have been erected within a century after that date. From the plan (Woodcut No. 692) it will be seen how singularly like it is



694.

View of West End of Abbey of Corvey.

to the St. Gall example, except that it appears to have been originally about 50 ft., or one-fourth, less in length. The western circular towers, instead of being detached, are here joined to the building. Piers too are introduced internally, alternating with pillars; and altogether the church shows just such an advance on the St. Gall plan as we might expect a century or so to produce. It exemplifies most satisfactorily the original form of these churches.

It possesses what is rare in this country—a bold triforium gallery, and externally that strange frontispiece, forming the connecting gallery of the two towers, which is so distinguishing a characteristic of German churches. A still bolder example of this gallery remains in the façade

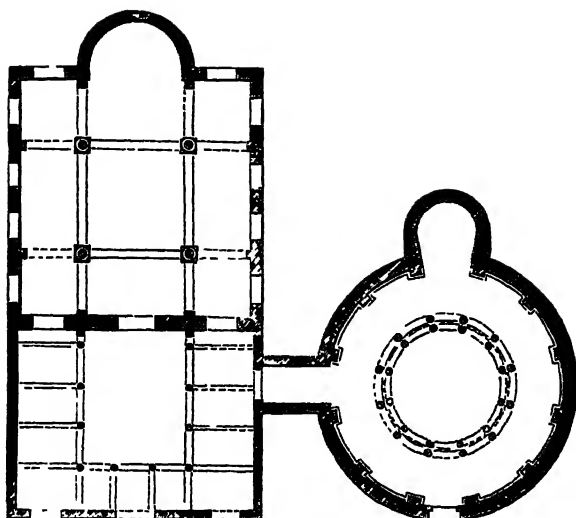
of the once famous abbey of Corvey, on the eastern frontier of Westphalia (Woodcut No. 694), where we find the feature developed to its fullest extent, so that it must originally have entirely hidden the church placed behind it, as it did afterwards at Strasbourg and in many other examples.

At Gernrode, as at Mittelzell, the roof was originally intended to have been of wood, the crypts under the two apses being alone vaulted. Indeed at that age the German architects hardly felt themselves skilled enough to undertake a stone roof of any great extent. The old Dom at Ratisbon is only 22 ft. in width, and that they could accomplish, but not apparently one like Gernrode, where the span was twice that in extent.

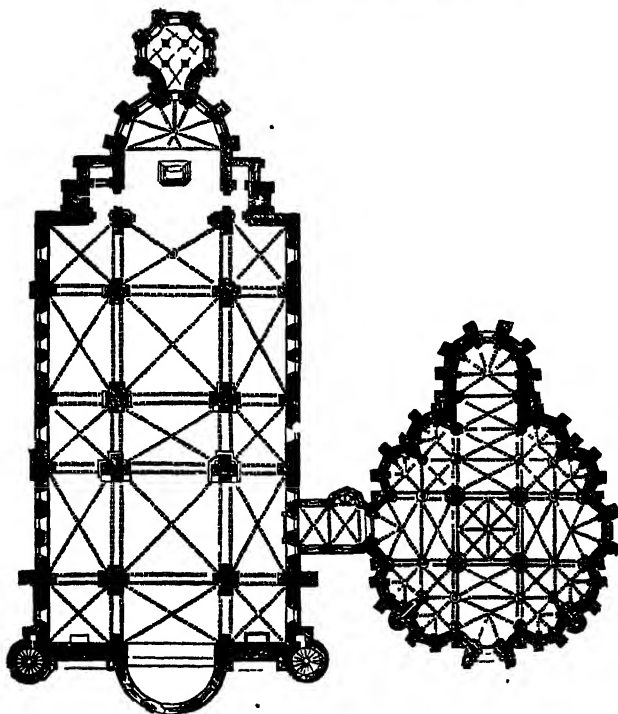
If the church at Gernrode is a satisfactory specimen of a complete German design carried out in its integrity, the cathedral at Trèves is both more interesting as well as instructive from a very different cause. It is one of those aggregated buildings of all ages and styles which let us into the secrets of the art, and contain a whole history within themselves; and as the dates of the successive building eras can be ascertained with very tolerable accuracy, it may be as well to describe it next in the series, to explain how and when the various changes took place.

As is well known, the original cathedral at Trèves was built by the pious Helena, mother of Constantine, and seems, like the contemporary church at Jerusalem, to have consisted of two distinct edifices, one rectangular, the other circular. The original circular building was pulled down in the 13th century, to make way for the present Liebfrauen church erected on its site, and most probably of the same dimensions. Of the other, or square building, enough still remains encased in the walls of the present basilica to enable us to determine its size and plan with very tolerable accuracy. The plan of it in the woodcut (No. 696) is taken from Schmidt's most valuable work on the Antiquities of Trèves. The atrium has been added by myself, because it was an almost universal feature in churches of the date in which this was erected, and because there is every reason to believe that the present church occupied as nearly as possible the exact site of the older one, and is of the same dimensions. The circular church is restored from the Roman examples of the same age (Woodcuts 227, and 422 to 436). From their relative positions it will be seen how indispensable the atrium must have been.

This Romanesque church seems to have remained pretty much in its original state till the beginning of the 11th century, when the Archbishop Poppo found it so ruinous from age, that it required to be almost entirely rebuilt. He first encased the pillars of the Romans in masonry, making them into piers. He then took in and roofed over the atrium, and added an apse at the western end, thus converting it



695.

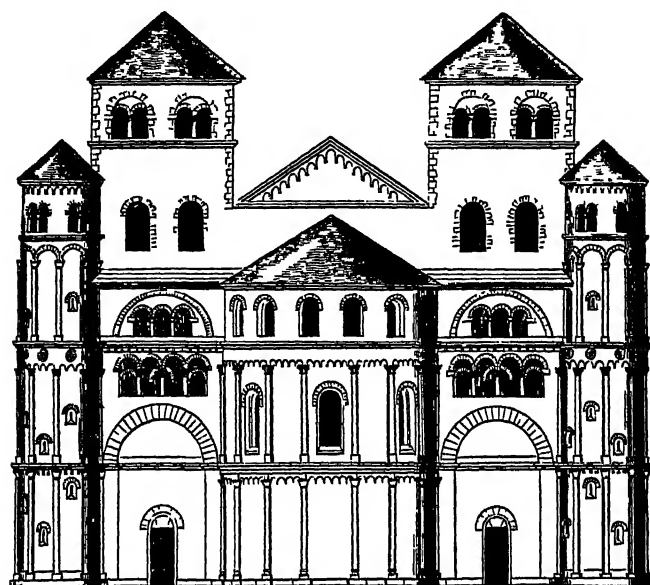
Plan of Original Church at Trèves.¹ Scale 100 ft. to 1 in.

696.

Plan of Medieval Church at Trèves. (From Schmidt, 'Baudenkmale von Trier.')
Scale 100 ft. to 1 in.

¹ It is by no means clear that there were not six pillars originally separating the nave from the aisles | instead of the four now built into the piers of the Gothic church

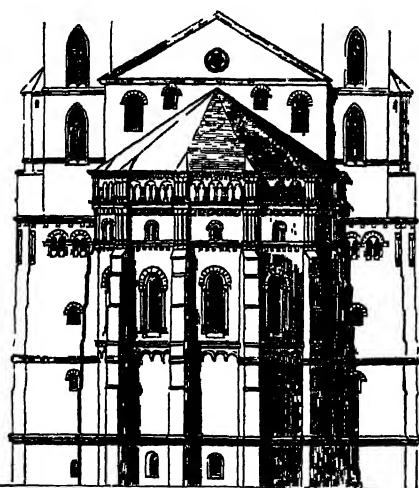
into a German church of the approved model, so that from this time forward the buildings took the form shown in the Woodcut No. 692.



697. Western Apse of Church at Treves. (From Schmidt.) Scale 50 ft to 1 in.

No very important works seem to have been undertaken from the beginning of the 11th till the middle of the 12th century, when Bishop

Hiln is said to have undertaken the repair or rebuilding of the eastern apse: he did not proceed beyond the foundation; but the work was taken up and completed by Bishop John, who held the see from 1190 to 1212. These two apses, therefore, one an example of the beginning of the German round-arched style, the other representing the same near its close, show clearly the progress which had been made in the interval.



698. Eastern Apse of Church at Treves. (From Schmidt.) Scale 50 ft. to 1 in.

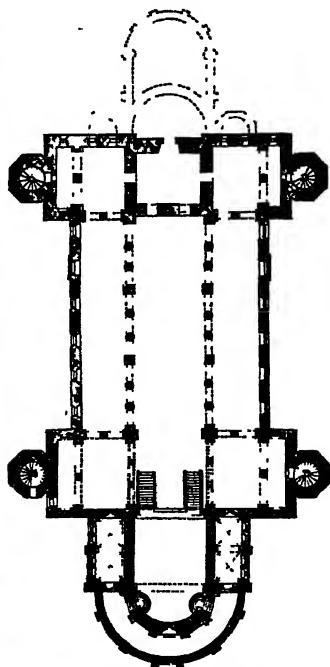
(Woodcut No. 697) is perhaps somewhat ruder than we might reasonably expect, though this may in part be accounted for by its

The first of these apses

remote provincial situation. The round towers too are subordinate to the square ones, in a manner more congenial to French than to German taste. But the principal defect is in the apsidal gallery, which is rude and tasteless as compared with other specimens, which we are apparently justified in considering as contemporary. Before the later or eastern apse was erected the gallery had almost run into the opposite extreme of minute littleness, and the polygonal form and projecting buttresses of pointed architecture were beginning to supersede the simpler outlines of the parent style, of which these two specimens form as it were the Alpha and the Omega. Between them the examples and varieties



699. Internal View of the Church of St. Michael, at Hildesheim. (From Möller.)



700. Plan of Church of St. Michael at Hildesheim

are so numerous, that there really is an *embarras de richesse* in selecting those most appropriate for illustration.

The church of St. Michael at Hildesheim, erected by Bishop Bernward in the first years of the 11th century, is among the earliest and most interesting of those remaining in sufficient purity to enable us to judge correctly of their original appearance. The plan (Woodcut No. 700) consists of nave and aisles, an eastern and western transept both projecting beyond the aisles, and flanked by octagonal towers

with staircases in them. The west choir, of one bay and apse, is flanked by two vestries, with a low aisle round the apse, and entered only from it. At the east end there were originally a central and two side apses,¹ but in the 12th century the central apse was replaced by one of equal length to that at the west end. All these apses have long ago disappeared. The entrances are as usual on each side of the nave, and none at the west end. Though the proportions appear short with reference to the breadth, considerable additional effect is given by the screens that shut off both arms of the eastern transept so as not to allow the perspective effect to be broken. Hence the continuous view of the central aisle, being six times as long as it is broad, gives the appearance of far greater length to the church than could be supposed possible from its lineal dimensions. But the great beauty here is the elegance both in proportion and detail of the pier-arches, which separate the nave from the aisles; the proportion of the pillars is excellent, their capitals rich and beautiful, and every third pillar being replaced by a pier gives a variety and apparent stability which is extremely pleasing.

The church at Limburg, near Dürkheim, in the Bavarian Rhenish Palatinate, erected by the Emperor Conrad (A.D. 1024-39), is a similar though rather a larger church than that at Hildesheim, and possesses a peculiarity somewhat new in Germany, of a handsome western porch and entrance, with a choir with a square termination, instead of with an apse as was usual. Another fine church, with a plan of the same form, is the Benedictine abbey church at Echternach, dedicated to St. Willibrord (a Northumbrian missionary monk). It was consecrated in 1031. The extreme dimensions are 265 ft. by 72 ft.

The three great typical buildings of this epoch are the Rhenish cathedrals of Mayence, Worms, and Spire. The first was commenced in the 10th century, and still possesses parts belonging to that age. The present edifice at Worms belongs principally to the church dedicated there in 1110. The age of the third and most important of these three cathedrals is still a matter of controversy, and one, I fear, that will not be settled without difficulty; for the church has been so frequently damaged by fire and war, and lately by ill-judged restorations, that it is not easy to ascertain what portions of it are old and what new. Still I cannot help feeling convinced that the plan, and probably a great part at least of the present structure, may belong to the original building of Conrad, commenced in 1030, and which was dedicated by his grandson Henry IV., thirty-one years afterwards.

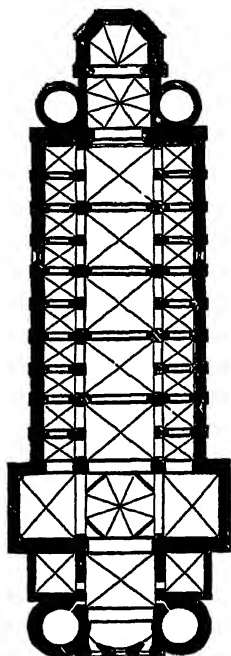
Except the eastern apse, which is as usual flanked by two round towers, the whole of the exterior of Mayence has been so completely

¹ Taken from R. Dohme, 'Geschichte der Deutschen Baukunst.' Berlin, 1887.

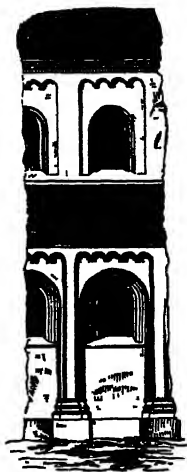
rebuilt, that little can now be said about it. The plan presents nothing remarkable, except that it is evident, from its solidity and arrangement, that it was intended from the commencement to be a vaulted building; while of its details only one doorway remains which can with certainty be said to belong to the original foundation.¹ It is remarkable principally for the classicality of its details, and if its age is correctly ascertained (the end of the 10th century), it would go far to confirm the date usually assigned to the portal at Lorsch, namely, the late Carolingian period.

At Worms, the only part now remaining of the edifice dedicated in 1110 is the eastern end. The western apse cannot be older than the year 1200, the intermediate parts having been erected between those dates. The original plan is probably nearly unchanged, and is a fine specimen of its class. The eastern apse is a curious compromise

between the two modes of finishing that were in use at that period, being square externally, and circular in the interior. Internally the vaulting throughout is simple and judicious, without any straining after effects like those which puzzled the Norman architects in the same age (see *ante*, p. 114), and the alternate clustered piers and large size of the windows give to the whole a variety and lightness not usual in churches of that date. Nothing can well be simpler or nobler than the design externally. The four circular towers and the two domes break the sky-line pleasingly, and the ornamentation throughout is good and appropriate. Among the best of its details are the pilaster-like buttresses which ornament its flanks; one of these is shown on a larger



701. Plan of Cathedral of Worms. (From Geier and Götz.) Scale 100 ft. to 1 in.



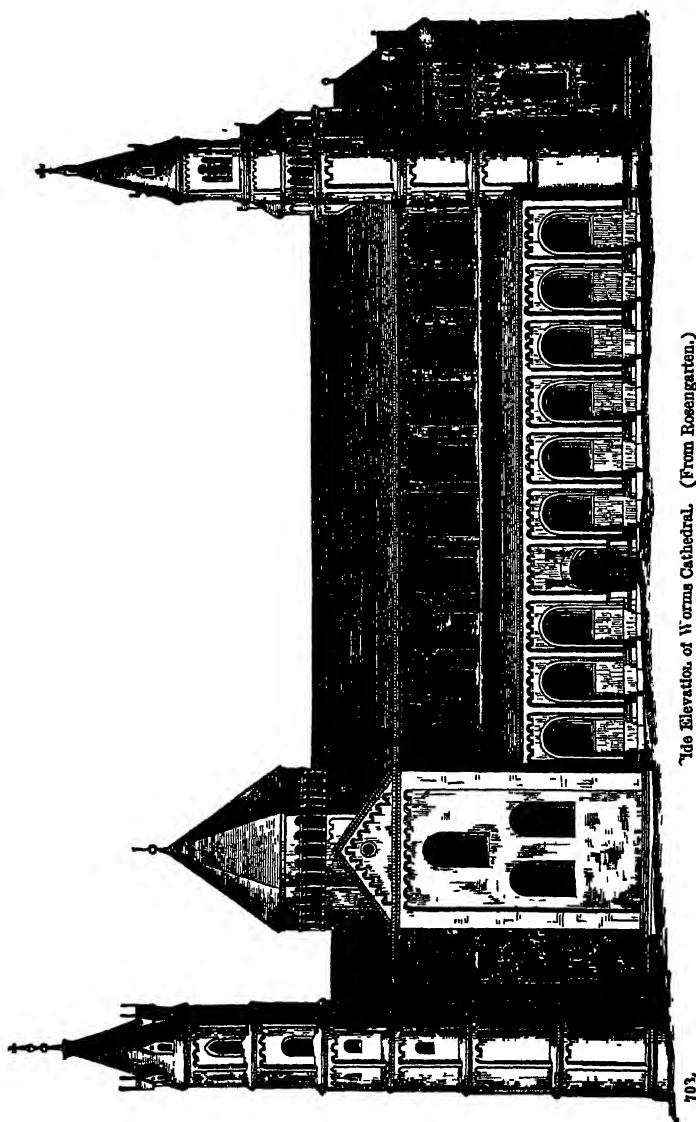
702. One Bay of Cathedral at Worms. (From Geier and Götz.)

scale (Woodcut No. 702). They display the true feeling of Romanesque art: one moulding on each side running round the windows, while the central group forms a pilaster running up to the cornice.

If the design has a defect, it is the want of dignity in the lateral

¹ Möller, 'Deutsche Baukunst,' vol. I. plate vi.

entrances, and from these moreover being placed unsymmetrically on the flanks. The fact of these being lateral arose from the double-apse arrangement, but there seems no reason why they should not have been central, and been covered by a porch to give them dignity.

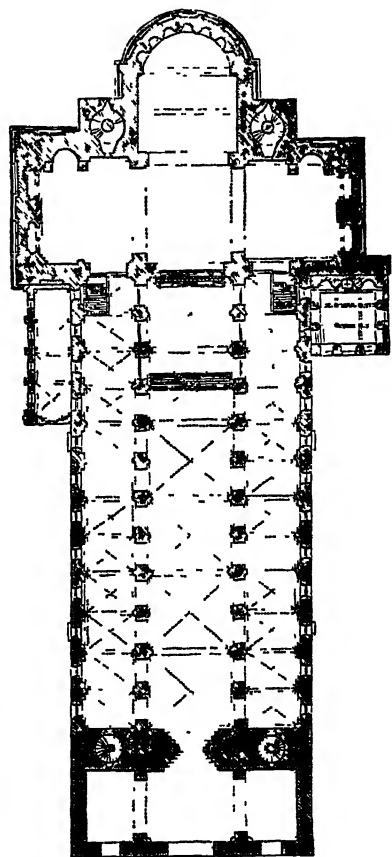


Whether right or wrong, this position of the entrances is typical of German church architecture, and is found in all ages.

Although the cathedral of Spires cannot boast of the elegance and finish of that of Worms, it is perhaps, taken as a whole, the finest

specimen in Europe of a bold and simple building conceived, if the expression may be used, in a truly Doric spirit. Its general dimensions are 435 ft in length by 125 in width, and taken with its adjuncts, it covers about 57,000 square feet, so that though of sufficient dimensions, it is by no means one of the largest cathedrals of its class. It is built so solidly, that the supporting masses occupy nearly a fifth of the area, and like the other great building of Conrad's, the church of Limburg, this possesses, what is so rare in Germany, a narthex or porch,¹ and its principal entrance faces the altar. Its great merit is the daring boldness and simplicity of its nave, which is 45 ft wide between the piers, and 105 ft. high to the centre of the vault, dimensions never attained in England, though they are equalled or surpassed in some of the French cathedrals. There is a simple grandeur about the parts of this building which gives a value to the dimensions unknown in later times, and it may be questioned if there is any other Mediæval church which impresses the spectator more by its appearance of size than this.

Externally, too, the body of the church has no ornament but its small window openings, and the gallery that runs round under all its roofs. But the bold square towers (certainly of the 12th century) and the central dome group pleasingly together, and, rising so far above the low roofs of the half-depopulated town at



704. Plan of the Cathedral at Spire.
(From Geier and Götz.) Scale 100 ft. to 1 in.

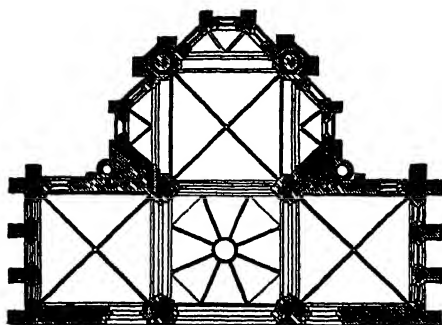
its feet, impress the spectator with awe and admiration at the boldness of the design and the grandeur with which it has been carried out. Taken altogether, this noble building proves that the German architects at that time had actually produced a great and original style, and that had they persevered they must have succeeded in

¹ This has been entirely rebuilt, with a modern front.—Ed.

perfecting it, but they abandoned their task before it was half completed.

The western apse of the cathedral at Mayence is the most modern part of these three great cathedrals, and perhaps the only example in Germany where a triapsal arrangement has been attempted with polygonal instead of circular forms. In this instance, as shown in Woodcut No. 705, the three apses, each forming three sides of an octagon, are combined together so as to form a singularly spacious and elegant choir, both externally and internally as beautiful as anything of its kind in Germany. Its style is so nearly identical with that of the eastern apse of the cathedral at Trèves (Woodcut No. 698), that there can be no doubt but that, like it, it belongs to the beginning of the 13th century. At this time more variety and angularity were coming into use, suggested no doubt by the greater convenience which flat surfaces presented for inserting larger windows than could conveniently be used with the older curved outlines; for now that painted

glass had come into general use, large openings had become indispensable for its display. Notwithstanding this advantage, and the great beauty of the other forms often adopted, none of them compensate for the external effect of the circular lines of the older buildings.



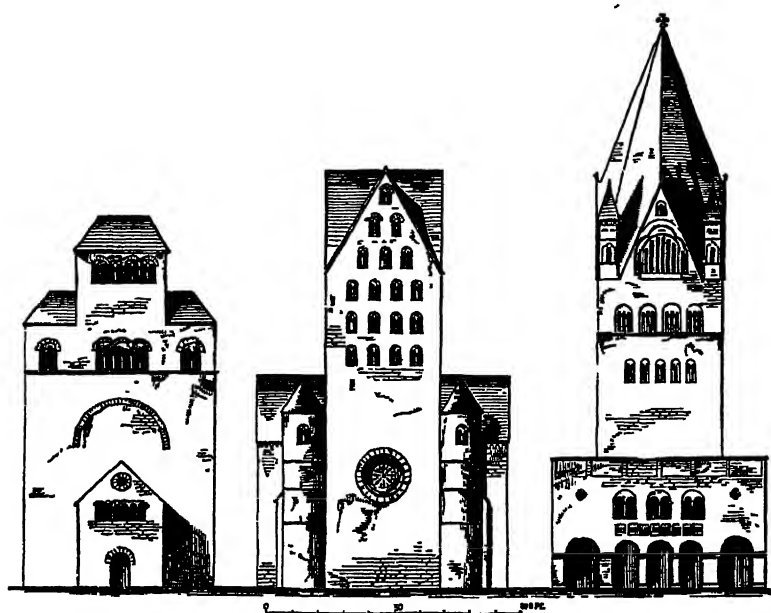
705. Western Apse of Cathedral at Mayence.

Proceeding northwards, we find in the churches of

Westphalia a fine series of examples which are comparatively but little known. Among the more important of these we may mention Munster, with its fine and impressive nave, Soest, Paderborn, Lippstadt, Osnabrück, Hildesheim, Hameln, Hersfeld, Brunswick, Quedlinburg, Goslar, Gelnhausen, etc. They are very numerous, and many of them are sufficiently large for architectural effect; but in the earlier Romanesque work they are somewhat heavy, and in the age of the pointed Gothic style there is a tendency to attenuation which is the reverse of pleasing. In some of the early churches there is considerable refinement, as may be seen in the narthex porch of the cathedral of Soest (Woodcut No. 706); and in the Schloss Kirche at Quedlinburg there is a profusion of sculpture in the capitals, some of which show considerable Byzantine influence.

A good deal of the heaviness of the northern churches internally may no doubt be traced to the circumstance that the earlier examples depended almost wholly on colour for their ornament, and the paint-

ing having disappeared, the plain stone or plaster surfaces remain—their flatness being made only the more prominent by the whitewash that now covers them. Notwithstanding these defects, so many of these churches remain in a state so nearly unaltered at the present day, that much information might be gleaned from a study of their peculiarities. The three examples, for instance, given in Woodcut No. 706, illustrate very completely the progress of German spire-growth. The first, that of Minden, is a very early example of the façade screen so popular throughout Germany in the Middle Ages. The central example, from the cathedral at Paderborn, belonging to



Church at Minden.

Cathedral at Paderborn.

Church at Soest.

706.

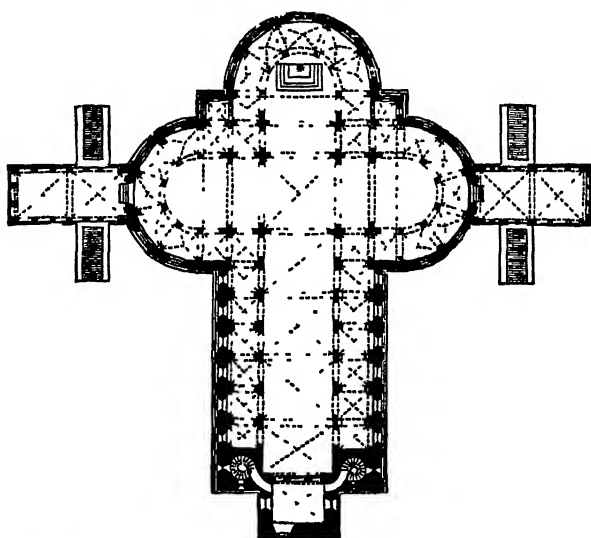
From 'Mittelalterliche Kunst in Westphalen,' von W. Lübke.

the middle of the 11th century, shows one of the earliest attempts at a spire-like roof to a tower, four gables being used instead of the two which were generally employed. The third illustration, from Soest, about A.D. 1200, shows the transition complete. The four gables are still there, but do not extend to the angles, nor do they form the principal roof. The corners are cut off, so as to suggest an octagon, and a second roof has grown up to the form of a spire, entirely eclipsing that suggested by the gables. In this instance also the tower has become a specimen of a complete design, and, though the narthex or porch has somewhat the appearance of being stuck on, the upper part of the tower is of considerable elegance.

The same process of spire-growth can be traced to some extent both

in England and in France, but on the whole it is by no means clear that the spire, properly so called, is not an importation from the banks of the Rhine. Height in the roof appears always to have been considered a beauty by German architects, and it seems to have been applied to towers earlier in Germany than in other countries.

Far more important than these, and surpassing them infinitely in beauty, is the group of churches which adorns the city of Cologne, the virtual capital, or at least the principal city, of Germany at the time of their erection. The old cathedral has perished and made way for the celebrated structure that now occupies its place. As just remarked, if it was like the restoration proposed by Boisserée, it resembled Worms,



707. Sta. Maria in Capitolio, Cologne. (From Boisserée's "Nieder Rhein.") Scale 100 ft. to 1 in.

and must have belonged to the 12th century; but it does not seem that there are sufficient data for determining this question.

Of the remaining churches three may be selected as types of the German round-arched style as it existed on the eve of the introduction of the French pointed style into Germany.

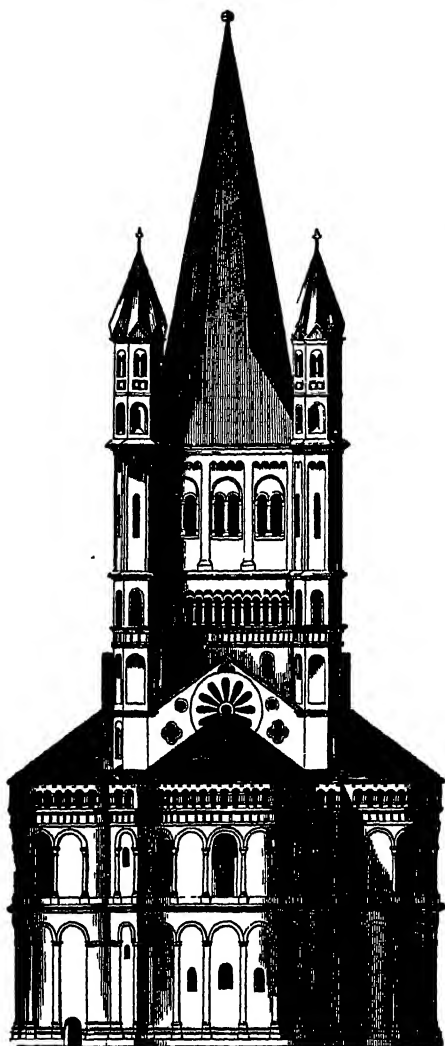
Of these, Sta. Maria in Capitolio (Woodcut No. 707) is apparently the oldest. It was originally erected by Plectrudis, wife of Pepin Heristall, in the year 700, but of that church nothing now remains. The nave was rebuilt apparently in the 11th century, and the choir, with its three noble apses, in the 12th, and perhaps even as late as the 13th century. In plan these apses are more spacious than those of the Apostles' Church or of that of St. Martin (Woodcuts 708 and 709), this church alone having a broad aisle running round each, a feature which gives great breadth and variety to the perspective, but the apse

of the Church of the Apostles (erected A.D. 1035) is far more beautiful externally. This latter building is perhaps, taken altogether, the most pleasing example of its class, externally at least. The whole design of the east end is quite complete, as we now see it, and is perfectly well balanced in all its parts. St. Martin's, on the other hand (Woodcut No. 709), has more of the aspiring tendencies of the pointed style, and, though very elegant, its apsidal gallery is too small, and the whole



design somewhat wire-drawn, while there is a solidity and repose about the design of the Apostles' Church, and a perfect harmony among the parts, which we miss in the more modern example. These three churches, taken together, suffice probably to illustrate sufficiently the nature and capabilities of the style which we are describing. The triapsal arrangement possesses in a remarkable degree the architectural propriety of terminating nobly the interior to which it is applied. As the worshipper advances up the nave, the three apses open gradually upon him, and form a noble and appropriate climax without the effect

being destroyed by something less magnificent beyond. But their most pleasing effect is external, where the three simple circular lines combine gracefully together, and form an elegant basement for any central dome or tower. Compared with the confused buttresses and



709. Apse of St. Martin's Church at Cologne.
(From Boisseree.) Scale 50 ft. to 1 in.

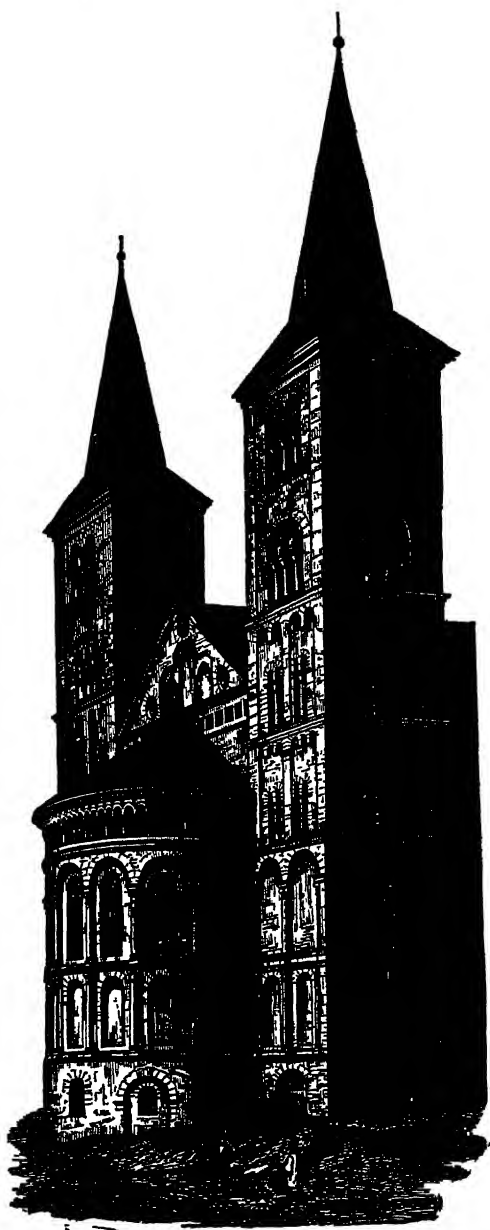
pinnacles of the apses of the French pointed churches, it must certainly be admitted that the German designs are far nobler, as possessing more architectural propriety and more of the elements of true and simple beauty. The churches which possess this feature are small, it is true, and therefore it is hardly fair to compare them with such imposing edifices as the great and overpoweringly magnificent cathedral of the same town; but among buildings on their own scale they are as yet unrivalled. As these churches now stand, their effect is to some extent marred by the circumstance of their naves neither being sufficient in extent nor so ornamental as to support effectually the varied outline and rich decoration of the apse. Generally these are of a different age and of a less ornate style, so that the complete effect of a well-balanced composition is wanting; but this does not suffice

to destroy the great beauties these churches undoubtedly possess.

In so far as beauty of design in this style is concerned, perhaps the church at Bonn ought to be quoted next after those of Cologne. It is only the east end, however, that belongs properly to their style of architecture, the nave and central tower were not completed till the

13th century ; but the eastern apse and its two flanking towers are in themselves as noble as the triapsal arrangement of the Apostles' Church, but would require even a bolder nave and loftier west end to balance them than the more modest arrangement of that building. As it is, the effect of the church as a whole is destroyed by the comparative meanness of these parts.

As is the case with almost all Mediæval buildings, the greater number of churches of this age have been erected at different periods of time, and the designs altered as the work proceeded, to suit the taste of the day. This circumstance makes them particularly interesting to the architectural historian, though the artist and architect must always regret the incompleteness and want of harmony which this produces. An exception to this rule is found in the beautiful abbey church at Laach, erected between the years 1093 and 1156, therefore rather early in the style. Its dimensions are small, only 215 ft. internally by 62 ; but this is compensated for by its completeness. It

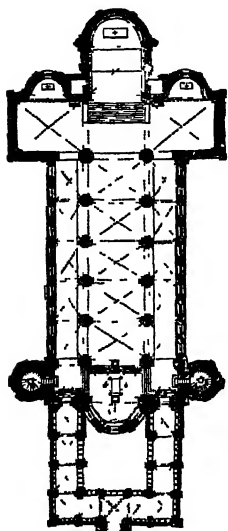


710

East End of Church at Bonn. (From Rosengarten)

is one of the few churches that still possess the western paradise or parvise, as shown in the remarkable ancient plan found at

St. Gall. The western apse is applied to its proper use of a tomb-house, and on each side of it, as at Mittelzell, are the principal entrances. Externally this church has two central and four lateral towers, two of the latter being square, and two circular. It is impossible to fancy anything more picturesquely pleasing than this group of towers of various heights and shapes, or a church producing a more striking effect with such diminutive dimensions as this one possesses, the highest point being only 140 ft. from the ground-line. No church, however, of the pointed Gothic style has its sky-line so pleasingly broken, while the cornices and eaves still retain all the unbroken simplicity of classic examples, showing how easily the two forms might have been combined by following the path here indicated. This church, the Laebfrauen Kirche at Halberstadt, and the Abbey of Maulbronn¹ in Wurtemberg, the most perfect Cistercian abbey existing, are perhaps the finest and most typical buildings in this style, and sufficient to charac-



711. Plan of Church at Laach.
(From Geier and Götz.)



712.

View of Church at Laach (From Geier and Götz.)

¹ For a description of this abbey see a paper read by Mr. Charles Fowler (R. I. B. A. Transactions, 1882-83).

terise the form of architecture in vogue in Germany in the great Hohenstaufen period (1138–1284), and in the century immediately preceding the accession to power of that house, but they are not nearly all the really important buildings which during the epoch of true German greatness were erected in almost every considerable city of the empire. In Cologne itself there is the church of St. Gereon,



713.

Church at Sinzig. (From Boisseree.)

the nave of which, with its crypt, belongs to the 11th century, the apse to the 12th, and the decagonal domed part to the 13th. This is a most interesting specimen of transition architecture, and as such will be mentioned hereafter. So is the church of St. Cunibert, dedicated in 1248, and hardly more advanced in style than the abbey of St. Denis near Paris, built at least a century earlier. The churches

of St. George and of Sion in the same city afford interesting examples

of the style; but even more important, however, than these are the noble church at Andernach, the remains of the abbey church of Heisterbach, and that of St. Quirinus in Neuss. In the same neighbourhood the little church of Sinzig is a pleasing specimen of the age when the Germans had laid aside the bold simplicity of their earlier forms to adopt the more elegant and sparkling contours of pointed architecture. A little farther up the Rhine the church of St. Castor at Coblenz agreeably exemplifies the later work (1157-1208), its apse being one of the widest and boldest of its class, though deficient in height, and the style may be said to have reached its zenith in the cathedrals of Limburg on the Lahn and Bamberg.

The neighbourhood of Trèves has also some excellent specimens of Romanesque work, among which may be mentioned the abbey of Echternach, the church of St. Mathias, and the interesting and elegant church of Merzig.

In Saxony there are many beautiful though no very extensive examples of the German style. Among these the two ruined abbeys of Paulinzelle and Bürgelin,



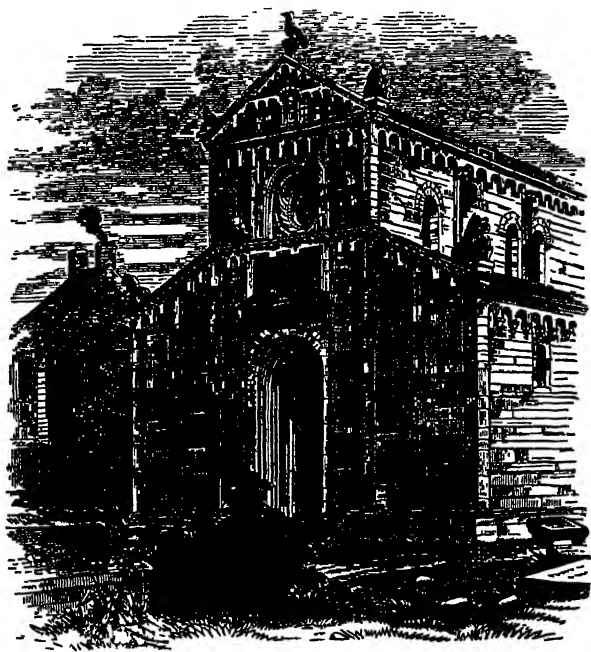
714. Rood-Screen at Wechselburg (From Putzich)



715. Crypt at Göllingen (From Putzich)

neither of them vaulted churches, are remarkable for the simple elegance of their forms and details, showing how graceful the style

was becoming before the pointed arch was introduced. The church at Wechselburg is also interesting, though somewhat gloomy, and retains a rood-screen of the 12th century (Woodcut No. 714), which is a rare and pleasing example of its class. The church at Hechlingen also deserves mention, and the fragment of the abbey at Gollingen is a pleasing instance of the pure Italian class of design sometimes found in Germany at this age. Its crypt, too (Woodcut No. 715), affords an example of vaulting of great elegance and lightness, obtained by introducing the horse-shoe arch, or an arch more than half a circle in extent, which takes off the appearance of great



716.

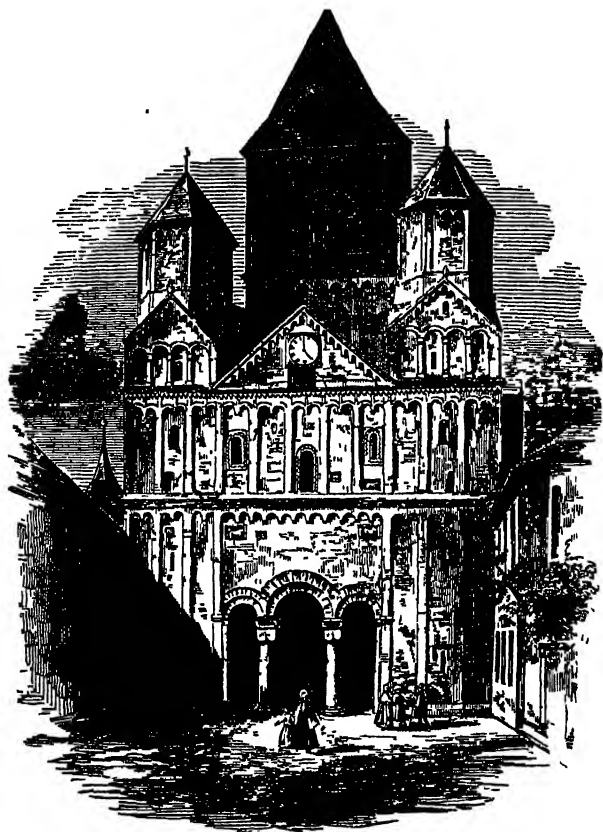
Façade of the Church at Rosheim. (From Chapuy)

pressure upon the capital of the pillar, and gives the vault that height and lightness which were afterwards sought for and obtained by the introduction of the pointed arch. It is still a question whether this was not the more pleasing expedient of the two. There was one objection to the use of this horse-shoe shape, that considerable difficulty arose in using arches of different spans in the same roof, which with pointed arches became perfectly easy.

Another example, of more Lombardic design however, is found in the church of Rosheim in Alsace, the façade of which (Woodcut No. 716) belongs as much to Verona as to this side of the Alps. Its interior is of pleasing design, though bolder and more massive than the exterior would lead us to expect.

The façade of the church of Marmoutier in the same province, and of the cathedral of Gebweiler, are two examples—very similar to one another—of a compromise between the purely German and purely Italian styles of design. The small openings in the former look almost like those of a southern clime, but in its present locality give to the church an appearance of gloom by no means usual. Still it has the merit of vigorous and purpose-like character.

At Bamberg the church of St. Jacob is well worthy of attention,



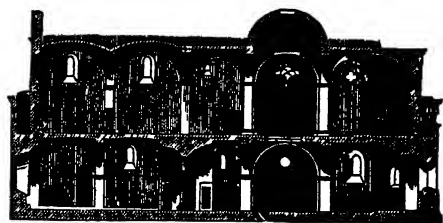
717.

Church at Marmoutier (Maarmünster) (From Chapuy.)

and the Scotch church at Ratisbon is one of the best specimens in Germany of a simple basilica without transepts or towers. Its principal entrance is a bold and elegant piece of design, covered with grotesque figures whose meaning it is difficult to understand. Had it been placed at the end of the church, it might have formed the basis of a magnificent façade; but stuck unsymmetrically on one side—as is so usual in Germany—it loses half its effect, and can only be considered as a detached piece of ornamentation, which is here—as it generally is—fatal to its effect as an architectural composition.

DOUBLE CHURCHES.

Before leaving ecclesiastical buildings, it is necessary to allude to a class of double churches and double chapels. Of the former the typical example is the church of Schwartz Rheindorf, erected by Arnold von Wied, Archbishop of Cologne, on his return from Constantinople in 1148, and dedicated in the year 1151. It is in itself a pleasing specimen of the style, irrespective of its peculiarity. It is, however, simply a church in two storeys, and was originally built as a mausoleum, and in the form of a Greek cross without a tower at the intersection. After the death of the Archbishop, his sister Hedwig (Abbess of Essen) extended the nave two bays towards the west in order to form a junction with a nunnery which she had built on the west side. It is probable that the Byzantine plan first carried out exercised much influence on the churches at Cologne and the Rhine generally. At first sight, the lower church looks like an extensive crypt, but this does not seem to have been its purpose so much as to afford an increase of accommodation, to enable two congregations to hear the same service at the same time, there being always in the centre of the floor of the upper church an opening sufficient for those above to hear the service, and for some of them at least to see the altar below. In castle chapels, where this method is most common, the upper storey seems to have been occupied by the noblesse, the lower by their retainers, which makes the arrangement intelligible enough.¹



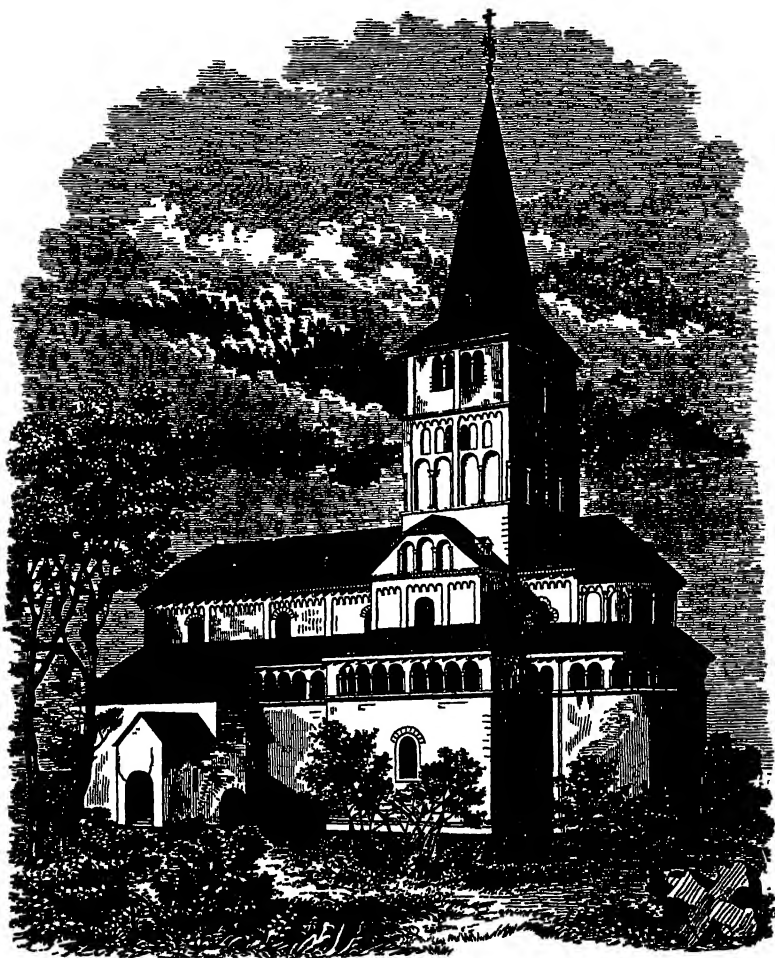
718. Section of Church of Schwartz Rheindorf
Scale 50 ft. to 1 in.

The church at Schwartz Rheindorf is not large, being only 112 ft. long, over all, by 53 ft. wide across the transepts; and the two western

¹ [Much has been said with regard to the use of double churches and chapels in Germany. In the cases of the chapels at Eger, Goslar, Nuremberg, Lohra, Landsberg, Freiburg on the Unstrutt, Coburg, Steinfurt, and Vian-den, it is apparent, as they were in connection with a castle or palace, that the Emperor (or Prince) with his retinue could enter the upper chapel by a connecting gallery from the palace. But Schwartz Rheindorf is so much

larger than any other double church or chapel known, that it would seem probable the object of the upper church was to provide a place of worship for the inhabitants in the case of floods, which in early times must have taken place yearly admission being obtained through a door on N. side, the sill of which is about 8 ft. from ground, and communicates with a stair-case leading to upper church.—ED.]

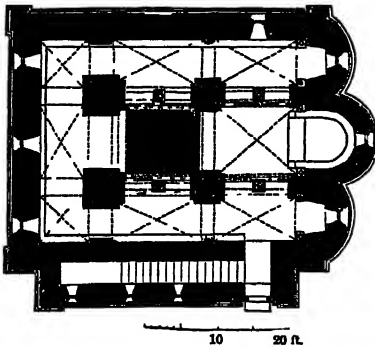
bays appear to have been added afterwards. The walls of the lower storey are built of sufficient thickness to admit of a gallery being carried all round the church externally on the level of the floor of the upper church. This gives it a very peculiar but pleasing character ; and as the details are good and appropriately designed, it is altogether



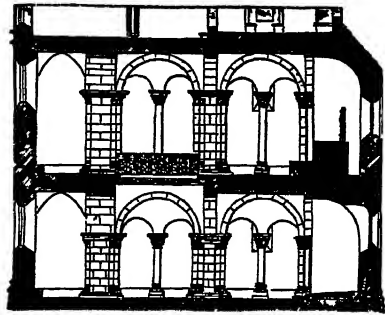
as characteristic and as original a design as can well be found of the purely German style of its age.

In the castle at Nuremberg there is an old double chapel of this sort, but it does not appear in this instance that there was an opening between the two ; if it existed, it has been stopped up. There is another at Eger, and two are described by Puttrich in his beautiful

work on Saxony · one of these, the chapel at Landsberg near Halle, is given in plan and section in Woodcuts Nos. 720 and 721 ; and though small, being only 40 ft. by 28 internally, presents some beautiful combinations, and the details are finished with a degree of elegance not

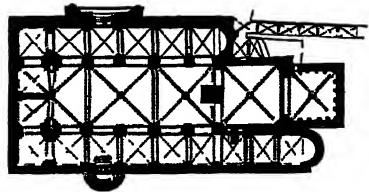


720 Plan of Chapel at Landsberg.
(From Puttrich)



721. Section of Chapel at Landsberg.
(From Puttrich.)

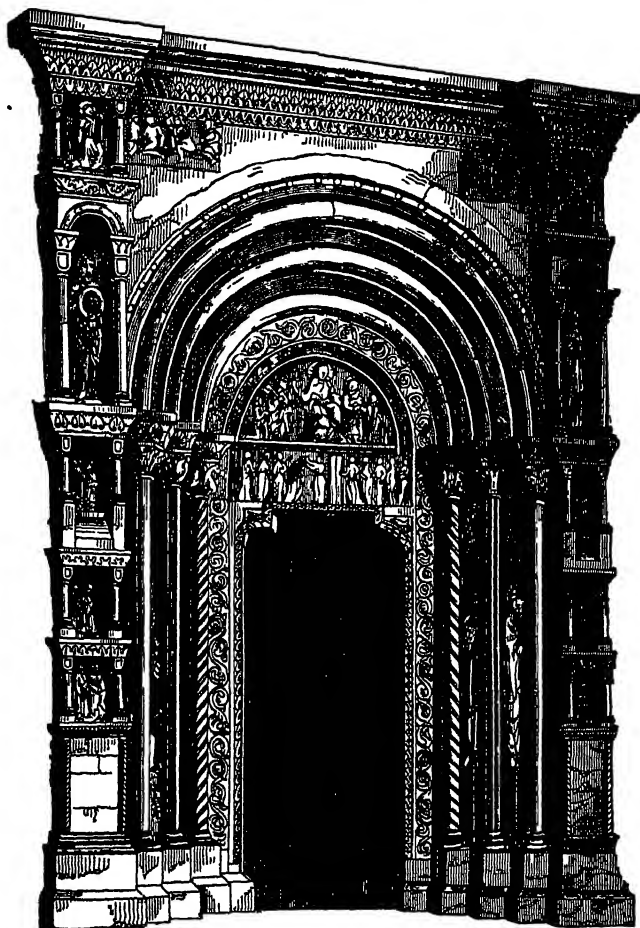
generally found in larger edifices ; the other, that at Freiburg on the Unstrutt, measuring 21 ft. by 28, is altogether the best of the class, from the beauty of its capitals and the finish of every part of it. It belongs in time to the very end of the 12th, or rather perhaps to the 13th century, and from the form of its vaults and the foliation of their principal ribs, one is almost inclined to ascribe to it a later period ; for it would be by no means wonderful if in a gem like this the lords of the castle should revert to their old German style instead of adopting foreign innovations. The windows are of pointed Gothic, and do not appear like insertions. Other examples exist at Goslar, where, however, there is no opening between lower and upper chapel ; at Coburg, Lohra, Steinfurt in Westphalia, and Vianden in Luxemburg.



722. View and Plan of the Cathedral at Zurich.
(From Voselin) Scale 100 ft. to 1 in.

Returning again to Switzerland, with which this chapter began, we find several interesting buildings in that country during the whole round-arched Gothic period, many combining the boldness of the Northern examples with a certain amount of Southern elegance of feeling in the details, which together make a very charming com-

bination Among these, none are more remarkable than the cathedral at Zurich (Woodcut No 722). Its date is not correctly known ; for though it seems that a church was founded here in the time of Otho the Great, it is very uncertain whether any part of that building is incorporated in the present edifice, the bulk of which is evidently of the 11th or 12th century. The arrangement and details of the nave



723.

Doorway at Basel (From Chapuy

are so absolutely identical with those of San Michele at Pavia, that both must certainly belong to the same epoch. But in this church we meet with several German peculiarities to which attention cannot be too frequently drawn by those who would characterise correctly the peculiarities of German Gothic.

The first of these is the absence of any entrance in the west front

Where there is an apse at either end, as is frequently the case in the German churches, the cause is perfectly intelligible, but the cathedral of Zurich has not, and never had, an apse at the west end, nor is it easy to suggest any motive for so unusual an arrangement, unless it is that the prevalence of the plan of two apses had rendered it more usual to enter churches in Germany at the side, and it was consequently adopted even where the true motive was wanting. In an architectural point of view, it certainly is a mistake, and destroys half the effect of the church, both internally and externally; but it was very common in Germany before they learnt from the French to make a more artistic arrangement of the several parts.

Another peculiarity is the distinct preparation for two towers at the west end, as proved by the two great piers, evidently intended to support their inner angles. Frequently in Germany the whole west end was carried up to a considerable height above the roof of the nave, and either two or three small spires were placed on this frontal screen. This, however, does not appear to have been the case here, for though the two towers that now adorn it are modern, the intention seems originally to have been the same. Had they been intended to flank the portal, and give dignity to the principal entrance, their motive would have been clear, but where no portal was intended, it is curious that the Germans should so universally have used them, while the Italians, whose portals were almost as universally on their west fronts, should hardly ever have resorted to this arrangement.

The east end, as will be observed, is square, an arrangement not unusual in Switzerland, though nearly unknown in the Gothic churches of Italy and Germany. The lateral chapels have apses, especially the southern one, which I believe to be either the oldest part of the cathedral, or to have been built on the foundations of that of Otho the Great.

The most beautiful and interesting parts of this church are the northern doorway and the cloisters, both of nearly the same age, their date certainly extending some way at least into the 12th century. As specimens of the sculpture of their age, they are almost unrivalled, and strike even the traveller coming from Italy as superior to any of the contemporary sculpture of that country.

One of the doorways of the cathedral of Basle (Woodcut No. 723) is in the same style, and perhaps even more elegant than that of Zurich. Both in the simplicity of its form and in the appropriateness of its details it is quite equal to anything to be found in Italy of the 11th or 12th century. Its one defect, as compared with Northern examples, is the want of richness in the archivolts that surmount the doorway. But, on the other hand, nothing can exceed the elegance of the shafts on either side, the niches of the buttresses, or of the cornice which surmounts the whole composition.

These details of the Swiss buildings are well worthy of the most attentive consideration, inasmuch as they equal those of Provence or the North of Italy in elegance of feeling and design, while they are free from the classical trammels which so frequently mar their appropriateness in those provinces. In Switzerland they are as original as in Northern Germany, and as picturesque, while they are free from the grotesqueness that so frequently mars the beauty of even the best examples in that country.¹

¹ For an important development of decorative sculpture in other parts of Germany during the late Romanesque period, consult the Appendix, note 9.

CHAPTER III.

CIRCULAR CHURCHES.

CONTENTS.

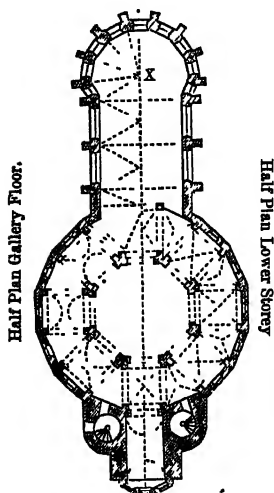
Aix-la-Chapelle—Nymwegen—Fulda—Bonn—Coburn.

IF we are fortunate in having the St. Gall plan and Reichenau cathedral with which to begin our history of the basilican-formed churches in Germany, we are equally lucky in having in the Dom at Aix-la-Chapelle an authentic example of a circular church of the same age. As Emperor of the Romans, Charlemagne seems to have felt it necessary that he should have a tomb which should rival that of Augustus or Hadrian, while, as he was a Christian, it should follow the form of that of Constantine, or the most approved model of the circular church, which was that which had been elaborated not very long before at Ravenna. Though its design may have been influenced by Romano-Byzantine examples to some extent, the general arrangement of the building, and its details exhibit an originality which is very remarkable. The mode in which the internal octagon is converted into a polygon of sixteen sides, the arrangement of the vaults in both storeys, and the whole design, are so purely Romanesque in form, that it must be far from being the first example of its style. It is, however, the oldest we possess, as well as the most interesting. It was built by the greatest man of his age, and more emperors have been crowned and more important events have happened beneath its venerable vaults than have been witnessed within the walls of any existing church in Christendom. Notwithstanding the doubts that have been thrown lately on the fact, I feel convinced that we now possess the church of Charlemagne in all essential respects as he left it.¹ The great difficulty in fixing its age appears to arise from the circumstance that most of its architectural ornaments have been painted or executed in mosaic, instead of being carved, and time and whitewash have so obliterated

¹ The building is as yet practically unedited, notwithstanding its importance in the history of architecture. I have myself examined this edifice, but in too hurried a manner to enable me to supply the deficiency I speak, therefore, on the subject with diffidence. (For literature on the subject see Appendix, note 10.)

these, that the remaining skeleton—it is little else—seems ruder and clumsier than might be expected.

As will be seen from the annexed plan, the church is externally a polygon of sixteen sides, and is about 105 ft in diameter; internally eight compound piers support a dome 47 ft. 6 in in diameter. The height is almost exactly equal to the external diameter of the building. Internally this height is divided into four storeys; the two lower, running over the side-aisles, are covered with bold intersecting vaults. The third gallery was vaulted with rampant conical vaults, and above that are eight windows giving light to the central dome.



724 Plan of the Church at Aix-la-Chapelle. (From J von Nolten.)
Scale 100 ft to 1 in

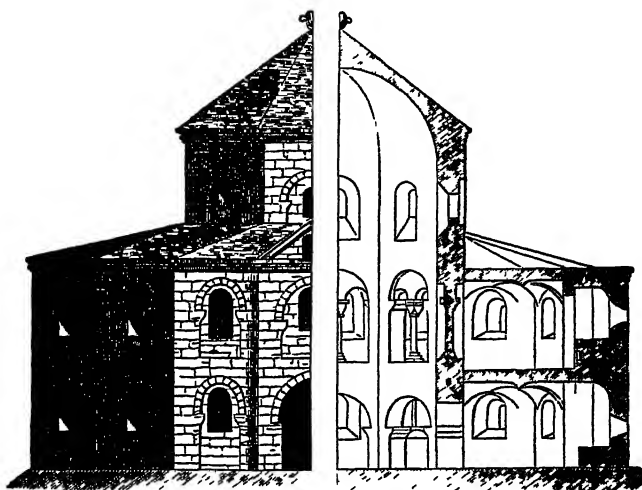
To the west was a bold tower-like building, flanked, as is usual in this style, by two circular towers containing staircases. To the east was a semicircular niche containing the altar, which was removed in 1353, when the present choir was built to replace it.

There is a tradition that Otho III. rebuilt this minster, though it is more probable that he built for himself a tomb-house behind the altar of that of his illustrious predecessor, where his bones were laid, and where his tomb till lately stood at the spot marked X in the centre of the new choir. What the architect seems to have done in the 14th century was to throw the two buildings into one, retaining the outline of Otho's tomb-house, which may still be detected in the unusual form shown in the plan of the new building.

The tradition is that this building is a copy of the church of San Vitale at Ravenna, and on comparing its plan with that represented in Woodcut No. 429, it must be admitted that there is a considerable resemblance. But there is a bold originality in the German edifice, and a purpose in its design, that would lead us rather to consider it as one of a long series of similar buildings which there is every reason to believe existed in Germany in that age. At the same time the design of this one was no doubt considerably influenced by the knowledge of the Romano-Byzantine examples of its class which its builders had acquired at Rome and Ravenna. Its being designed by its founder for his tomb is quite sufficient to account for its circular plan—that, as has been frequently remarked, being the form always adopted for this purpose. It may be considered to have been also a baptistery—the coronation of kings in those days being regarded as a re-baptism on the entrance of the king upon a new sphere of life. It

was in fact a ceremonial church, as distinct in its uses as in its form from the basilica, which in Italy usually accompanied the circular church, but whether it did so or not in this instance can only be ascertained when the spot and its annals are far more carefully examined than has hitherto been the case.

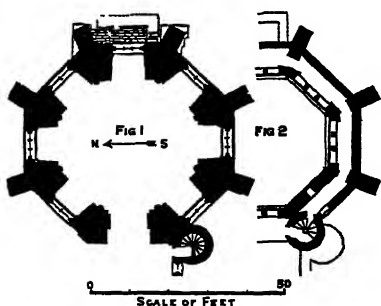
The circular churches at Nymwegen in Brabant and at Mettlach near Trèves are even less known than this one; the former was



725.

Church at Nymwegen (From Schayes) No scale

apparently built in imitation of Aix-la-Chapelle, and by the same monarch. From the half-section, half-elevation (Woodcut No. 725),¹ it will be seen that it is extremely similar to the one just described, both in plan and elevation, but evidently of a somewhat more modern date. It wants the façade which usually adorned churches of that age; but it seems so unaltered from its original arrangement that it is well worthy of more attention than it has hitherto received. The



725a.

The Thurm, Mettlach.

example at Mettlach (Woodcut No. 725a), near Trèves, and known as the Thurm, was built by Lioffinus, a British monk, 987-990. It is octagonal in plan, with a triforium gallery, the arches of which are carried on richly carved cubical capitals (Woodcut No. 725b). The

¹ Taken from Schayes' *Histoire de l'Architecture en Belgique*, vol ii. p. 18, taken by him, I believe, from Lassaulx.

building is 32 ft. in diameter and 61 ft. high, there being a third storey above the triforium gallery.

The same design as that of Nymwegen was repeated in the choir of the nuns in the abbey church of Essen (c. 950 A.D.), where, however, there is a double range of columns in the upper gallery.



725b Column of Triforium, Mettlach

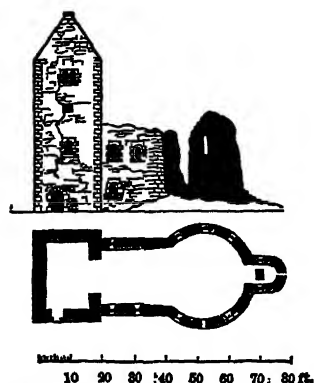
Of the church of Otho the Great at Magdeburg we know nothing but from a model in stone, about 12 ft. in diameter, still existing in the present cathedral, and containing sitting effigies of Otho and his English Edith, who were buried in the original edifice. The model unfortunately was made in the 13th century, when the original was burnt down; and as the artists in that day were singularly bad copyists, we cannot depend much on the resemblance. It appears, however, to have been a polygon of sixteen sides externally, like the two just mentioned, and if it is correct to assume, as was generally the case, that the choir of the present cathedral is built on the foundation of the older church, its dimensions must have been nearly similar, or only slightly

inferior to those of either of the two last-mentioned churches. The details of the model belong to the age in which it was made, and not to that of the church it was meant to represent.

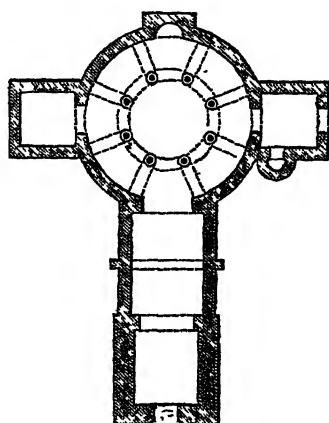
At Ottmarsheim, in Alsace, is another example which, both in design and dimensions, is a direct copy of the church at Aix-la-Chapelle. The only difference in plan is that it remains an octagon externally as well as internally, and that the gallery arches, instead of being filled with a screen of classical pillars borrowed from Italy, are ornamented with shafts supporting eight arches designed for the place. There is no tradition which tells us who built this church, nor for what purpose it was erected. It is older than that at Nymwegen, but is certainly a copy of Charlemagne's church, and apparently not very much more modern.

At the Petersberg, near Halle, is a curious compound example shown in the Woodcut No. 726. It is a ruin, but interesting as showing another form of circular church, differing from those described above, more essentially German in design, and less influenced by classical and Romanesque forms than they were. It never was or could have been vaulted, and it possesses that singular flat tower-like frontispiece so characteristic of the German style, which is found in no other country, and whose origin is still to be traced.

At Fulda there is a circular church of a more complicated plan than this, though it is in fact only an extension of the same design. The circular part or choir is in this instance adorned with eight free-standing pillars of very classical proportions and design, very similar to those of Hildesheim (Woodcut No. 699). There is a small



726. Church at Petersberg.
(From Puttrich.)



727 Plan of Church at Fulda (From Puttrich.) Scale 50 ft. to 1 in.

transeptal entrance on one side of the circle, and apparently a vestry to correspond on the other. It is altogether one of the most perfect buildings of its class, either in Germany or France, in so far at least as its plan is concerned. Its date is probably the beginning of the 11th century, but it stands on a circular crypt of still more ancient date.¹

At Drüggelte, near Soest, there is a small circular church which deserves notice for the singularity of its plan. Externally it is a polygon of twelve sides. Internally it has four circular piers in the centre, two very large and strong, two more slender, and around them a circle of twelve columns of very attenuated form. As is usual in German churches, the door and apse are not placed symmetrically as regards each other. Its dimensions are small, being only 35 ft. across internally. The German architects are not quite agreed as to its date; generally it is said that its founder brought the plan from the Holy Land, and built it here early in the 12th century in imitation of the Rotunda which the Crusaders found on their arrival in Jerusalem.



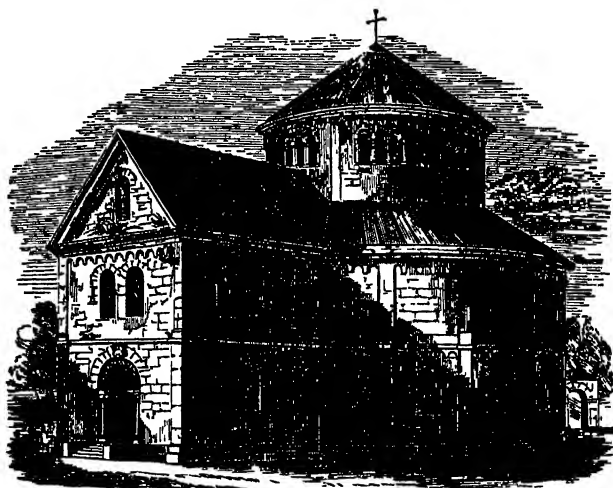
728 Plan of Church at Drüggelte (From Kugler.)
Scale 50 ft. to 1 in.

Though it is anticipating to some extent the order of the dates of the buildings of Germany, it may be as well to complete here

¹ See paper by Mr. Petit in the 'Archæological Journal,' vol. xviii. p. 110.

the subject of the circular churches of that country, for after the beginning of the 11th century they ceased to be used except in rare and isolated instances. At that date all the barbarian tribes had been converted, and the baptism of infants was a far less important ceremony than the admission of adults into the bosom of the Church, and one not requiring a separate edifice for its celebration, and tombs had long since ceased to be objects of ambition among a purely Aryan race. At the same time the immense increase of the ecclesiastical orders, and liturgical forms then established, rendered the circular form of church inconvenient and inapplicable to the wants of the age. The basilica, on the other hand, was equally sacred with the baptistery, and soon came to be considered equally applicable to the entombment of emperors and to other similar purposes.

The circular church called the Baptistery at Bonn (Woodcut No. 729), which was removed only a few years ago, was one of the most



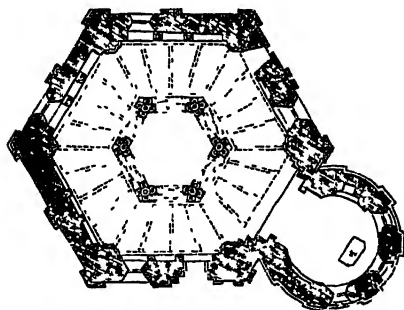
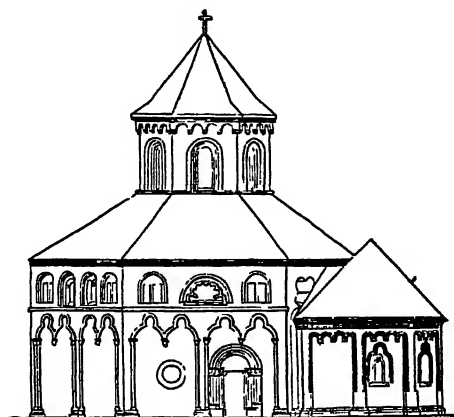
729.

Baptistery at Bonn. (From Boisseree's 'Nieder Rhein')

interesting specimens of this class of monuments in the age to which it belongs. No record of its erection has been preserved, but its style is evidently of the 11th century. Excepting that the straight or rectangular part is here used as a porch, instead of being inserted between the apse and the round church to form a choir, the building is almost identical with St. Tomaso in Limine, and other Lombard churches of the same age. Both externally and internally it is certainly a pleasing and elegant form of church, though little adapted either for the accommodation of a large congregation or to the ceremonies of the Mediæval Church.

There is another small edifice called a Baptistery at Ratisbon, built in the last years of the 12th century, which shows this form

passing rapidly away, and changing into the rectangular. It is in reality a square with apses on three sides, and vaulted with an octagonal dome. As we have just seen, the same arrangement forms the principal as well as the most pleasing characteristic of the Cologne churches, where on a larger scale it shows capabilities which we cannot but regret were never carried to their legitimate termination. The present is a singularly pleasing specimen of the class, though very small,



730 The Matthias Chapel at Cobern on the Moselle.
(From Wiebeking) No scale

and wanting the nave, the addition of which gives such value to the triapsal form at Cologne, and shows how gracefully its lines inevitably group together. On the spot it is still called the Baptistery; but the correct tradition, I believe, is that it was built for the tomb-house of the bishop to whom it owes its erection.

One more specimen will serve to illustrate nearly all the known forms of this class. It is a little chapel at Cobern on the Moselle (Woodcut No 730), hexagonal in plan, with an apse, placed most unsymmetrically with reference to the entrance—so at least we should consider it; but the Germans seem always to have been of opinion that

a side entrance was preferable to one opposite the principal point of interest. The details of this chapel are remarkably elegant, and its external form is a very favourable specimen of the German style just before it was superseded in the beginning of the 13th century by the French pointed style.

There is, besides these, a circular chapel of uncertain date at Altenfurt near Nuremberg, and there are many others at Prague and in various parts of Germany, but none remarkable either for their historical or for their artistic importance. This form went out of use before the style we are describing reached its acmé; and it had not therefore a fair chance of receiving that elaboration which was necessary for the development of its capabilities.

A little farther on we shall have occasion again to take up the subject of circular churches when speaking of those of Scandinavia, where the circular form prevailed to a great extent in the early ages of Christianity in that country; never, however, as a baptistery or a tomb-house, but always as a kirk. It was afterwards introduced by the Danes into Norfolk and Suffolk, but there still farther modified, becoming only a western round tower, instead of a circular nave.

CHAPTER IV.

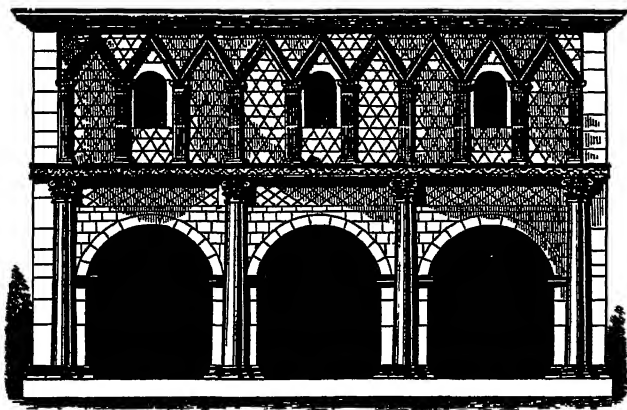
DOMESTIC ARCHITECTURE.

CONTENTS.

Lorsch—Palaces on the Wartburg and at Gelnhausen—Houses—Windows

As might be expected, the remains of domestic architecture are few and insignificant as compared with those of the great monumental churches, which in that age were the buildings *par excellence* on which the wealth, the talent and the energy of the nation were so profusely lavished.

The earliest building which has been brought to light is certainly the portal of the Convent at Lorsch, near Mannheim. It is now used as a store and has been a good deal defaced ; but sufficient remains, not only to show its form, but the character of its details.¹ These are so



731.

Porch of Convent at Lorsch. (From Müller's 'Denkmäler,' &c.) No scale.

classical as to justify us in calling the building Romanesque ; and if it were not that we have buildings—such for instance as St. Paul-Trois-Châteaux (Woodcut No. 551), which may date in the 10th and 11th century—we might be inclined to assert most confidently that the date of this building must approximate nearly to the time of the departure of the Romans. On the other hand, the purely classical details of such buildings as those found in Provence must render us

¹ Consult the Appendix, note 11.

cautious in judging of the age of any erection at that early time, from the style alone. No church in Germany is so classical in its details as this, but it will not do to rely on these alone for evidence of date; for a hundred churches may have been built for one portal like this, and though ecclesiastical forms had become sacred, an architect may have felt himself justified in resorting to any amount of Paganism in a semi-secular building. On the whole there seems little doubt but that this porch formed part of the monastic building dedicated in the presence of Charlemagne in 774. It may, however, have been erected by an Italian architect, and consequently be more classical in its details than if the product of some purely Teutonic artist.

Its dimensions are inconsiderable, being only 31 ft. by 24. It has three arches in each face, and above them a series of pilasters supporting straight-lined arches—if the expression may be used. These are interesting, as the same form is currently used in our Saxon architecture, but never with such purely classical details as here. It is, in fact, only the elegance of these that gives interest to this building.

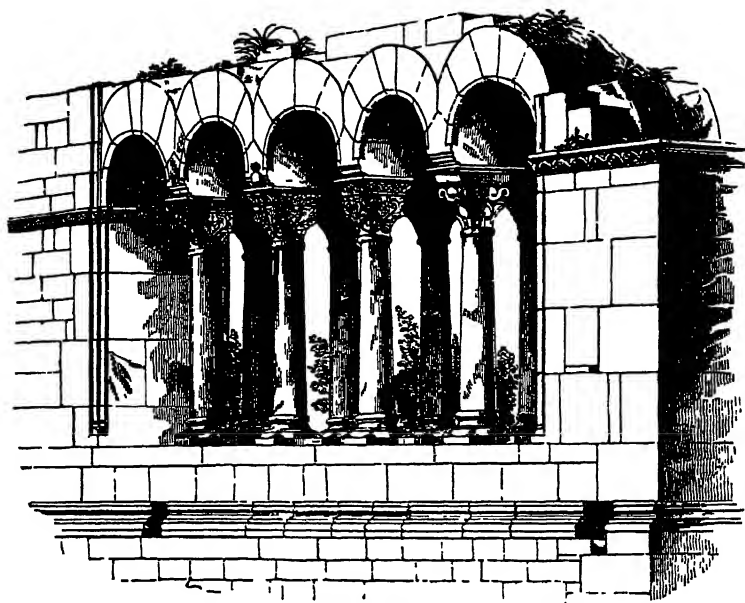
Nothing now remains of the palaces which Charlemagne built at Ingelheim, or at Aix-la-Chapelle, nor of the residences of many of his successors, till we come to the period of the Hohenstaufens. Of their palaces at Gelnhausen (1170 A.D.) and on the Wartburg (1140–1190 A.D.) enough remains to tell us at least in what style and with what degree of taste they were erected, and the remains of the contemporary castle of Muenzenburg complete, as far as we can ever now expect it to be completed, our knowledge of the subject.

One of the earliest palaces still existing is that of the Imperial Palace at Goslar, founded by Henry III. It has suffered much from restorations, but probably retains its original plan, the chief feature of which is an immense hall on the upper storey measuring 181 ft. long by 52 ft. wide. Another example with similar hall of less size is found in the Palace of Dankwarderode, in Brunswick, 1150–70. Of the same date is the Palace of Eger, to which Frederic Barbarossa added a chapel in two storeys, similar to the double chapel of Landsberg, both of which are referred to on page 243.

Besides these a considerable number of ecclesiastical cloistered edifices still remain, and some important dwelling-houses in Cologne and elsewhere; but on the whole our knowledge is somewhat meagre, —a circumstance that is much to be lamented, as, from what we do find, we cannot fail to form a high idea of the state of the domestic building arts at that period.

What remains of the once splendid palace of Barbarossa at Gelnhausen consists first of a chapel very similar to those described in the last chapter; it is architecturally a double chapel, except that the lower storey was used as the hall of entrance to the palace, and not

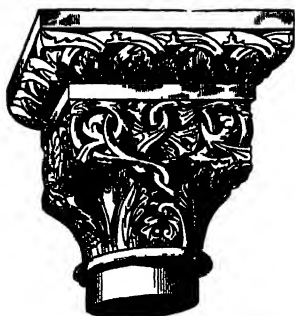
for divine service. To the left of this were the principal apartments of the palace, presenting a façade of about 112 ft. in length, and probably half as high. Along the front ran a corridor about 10 ft.



732.

Arcade of the Palace at Gelnhausen (From Möller.)

deep, a precaution apparently necessary to keep out rain before glass came to be generally used. Behind this there seem to have been three rooms on each floor; the largest, or throne-room, being about 50 ft. square. The principal architectural features of what remains are the open arcades of the façade, one of which is represented in the last woodcut (No. 732). For elegance of proportion and beauty of detail they are unsurpassed by anything of the age, and certainly give a very high idea of the degree of excellence to which architecture and the decorative arts had then been carried, and, as will be observed, they are purely Romanesque in detail, without any trace of the classicity of Lorsch.

733 Capital, Gelnhausen
(From Möller, 'Denkmäler.')

The castle on the Wartburg is historically the most important edifice of its class in Germany, and its size and state of preservation render it remarkable in an artistic point of view. It was in one of its halls that the celebrated contest was held between the six most eminent

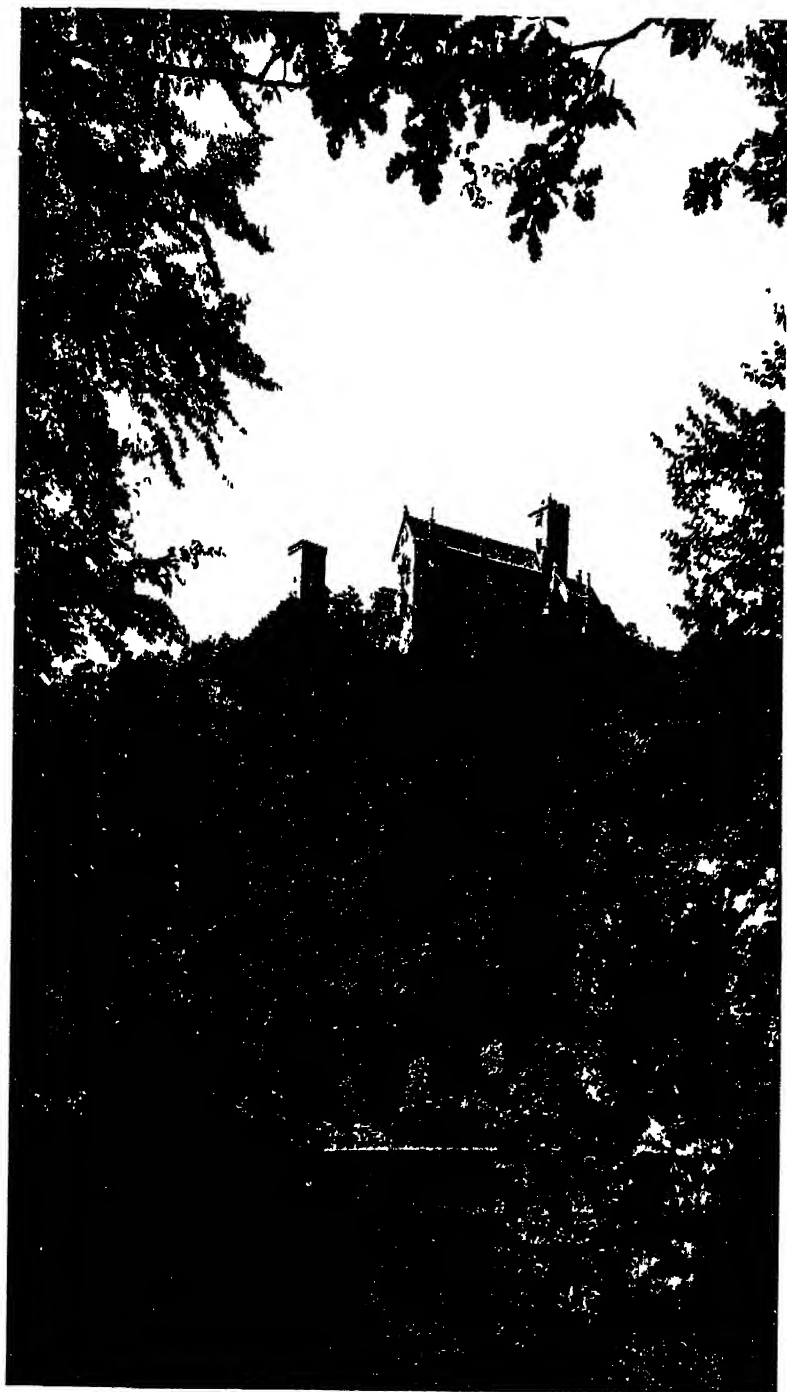
poets of Germany in the year 1206, which, though it nearly ended fatally to one of them at least, shows how much importance was attached to the profession of literature at even that early period. Here the sainted Elizabeth of Hungary lived with her cruel brother-in-law ; here she practised those virtues and endured those misfortunes that render her name so dear and so familiar to all the races of Germany , and it was in this castle that Luther found shelter after leaving the Diet at



Worms, and where he resided under the name of Ritter George, till happier times enabled him to resume his labours abroad.

The principal building in the castle where these events took place closely resembles that at Gelnhausen, except that it is larger, being 130 ft. in length by 50 in width. It is three storeys in height, without counting the basement, which is added to the height at one end by the slope of the ground.

All along the front of every storey is an open corridor leading to the inner rooms, the dimensions of which cannot now be easily ascer-



THE WARTBURG, NEAR EISENACH, THURINGIA

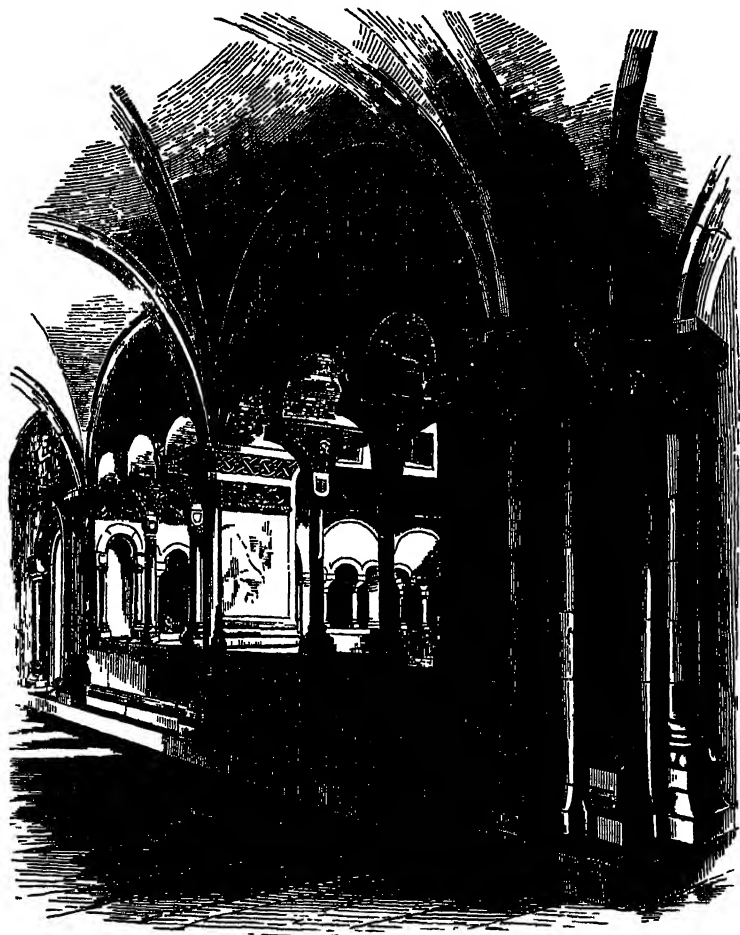
tained, owing to the castle having been always inhabited, and altered in modern times to suit the convenience and wants of its recent occupiers. In its details it has hardly the elegance of Gelnhausen, but its general appearance is solid and imposing, the whole effect being obtained by the grouping of the openings, in which respect it resembles the older palaces at Venice more than any other buildings of the class. It has not perhaps their minute elegance, but it far surpasses them in grandeur and in all the elements of true architectural magnificence. It has been recently restored, apparently with considerable judgment, and it well deserves the pains bestowed upon it as one of the best illustrations of its style still existing in Europe.

The extensive ruins of the castle on the Munzenberg, which, like those of Gelnhausen and Wartburg, belongs to the 13th century, though less important, is hardly less elegant than either. It derives a peculiar species of picturesqueness from being built principally of the prismatic basalt of the neighbourhood, the crystals being used in their natural form, and where these were not available, the stones have been rusticated with a boldness that gives great value to the more ornamental parts, in themselves objects of considerable beauty.

None of these castles have much pretension to interest or magnificence as fortifications,—a circumstance which gives an idea of more peaceful times and more settled security than we could quite expect in that age, especially as we find in the period of the pointed style so many and such splendid fortifications crowning every eminence along the banks of the Rhine, and indeed in every corner of the land. These last may, in some instances, have been rebuildings of castles of this date, but I am not aware of any having been ascertained to be so.

There is no want of specimens of conventual buildings and cloisters in Germany of this age; but every one is singularly deficient both in design as a whole and in the elegance of its parts. The beautiful arcades of the palaces we have just been describing nowhere reappear in conventual buildings. Why this should be so it is difficult to understand, but such certainly is the fact. The most elegant that is known to exist is probably the cloister to the cathedral at Zurich. It is nearly square, from 60 to 70 ft. each way. Every side is divided into five bays by piers supporting bold semicircular arches, and these are again subdivided into three smaller arches supported by two slender pillars. The arrangement will be understood from the woodcut (No. 735). This cloister is superior in design to many in France and elsewhere of the same age; its great beauty consists in the details of the capitals and string-courses, which are all different, most of them with figures singularly well executed, but many merely with conventional foliage, not unlike the honeysuckle of the Greeks, and not unworthy of the comparison as far as the mere design is concerned,

though the execution is rude. The same is the case with the sculptures of the portal, for though they display even less classical feeling, they show an exuberance of fancy and a boldness of handling which we miss entirely in the succeeding ages, when the art yielded to make way for mere architectural mouldings, as if the two could not exist together. The example of Greece forbids us to believe that such is



735.

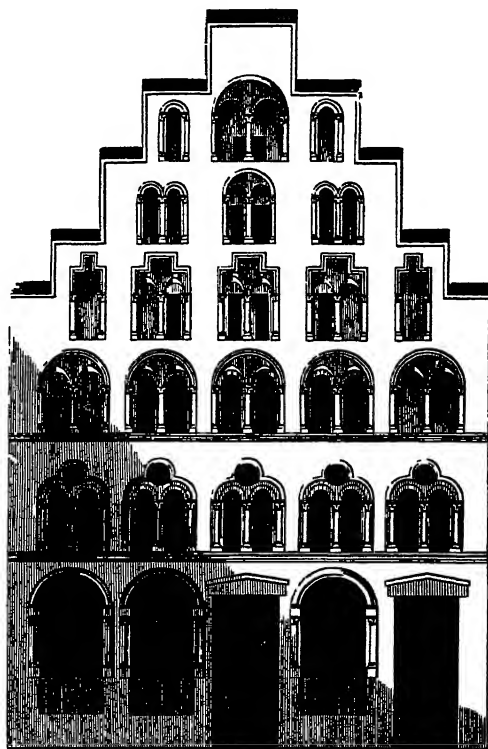
Cloister at Zurich (From Chapuy, 'Moyen-Age Monumental.')

necessarily the case, but in the Middle Ages it certainly was, that as the one advanced nearer to perfection, the other declined in almost an equal degree.

The best collection of examples of German cloisters is found in Boisserée's 'Nieder-Rhein.' But neither those of St. Gereon nor of the Apostles, nor St. Pantaleon at Cologne, merit attention as works

of art, though they are certainly curious as historical monuments; and the lateral galleries of Sta. Maria in the Capitol are even inferior in design; their resemblance, however, to the style of Ravenna gives them some value archæologically. The same remarks apply to the cloisters at Heisterbach, and even to the more elegant transitional buildings at Altenberg. Almost all these examples, nevertheless, possess some elegant capitals and some parts worthy of study; but they are badly put together and badly used, so that the pleasing effect of a cloistered court and conventual buildings is here almost entirely lost. The cause of this is hard to explain, when we see so much beauty of design in the buildings to which they are generally accompanied.

There are several dwelling-houses in Cologne and elsewhere which show how early German town-residences assumed the tall gabled fronts which they retained to a very late period through all the changes which took place in the details with which they were carried out. In the illustration (Woodcut No. 736) there is little ornament, but the forms of the windows and the general disposition of the parts are pleasing, and the



736. Dwelling-house, Cologne (From Bousserée)

general effect produced certainly satisfactory. The size of the lower windows is remarkable for the age, and the details are pure, and are executed with a degree of lightness which we are far from considering as a general characteristic of so early a style.

The windows at the back of the house illustrated in Woodcut No. 736, are so large, that were it not for the unmistakable character of those in front, and of some of its details, we might be inclined to suspect that it belonged to a much more modern age. As shown in the Woodcut No. 737, the details are as light and elegant as anything domestic in architecture of the pointed style.

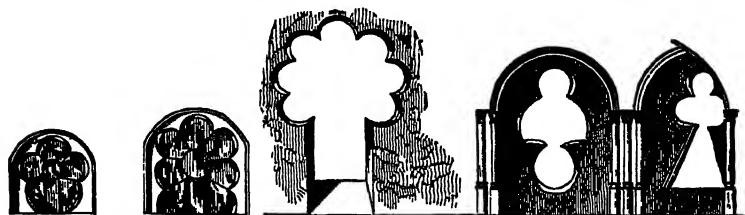
There are several minor peculiarities which perhaps it might be more regular to mention here, but which it will be more convenient to allude to when speaking of the pointed style. One, however, cannot thus be passed over—and that is the form which windows in churches and cloisters were beginning to assume just before the period when the transition to the pointed style took place.



737. Windows in Dwelling-house, Cologne.

Up to that period the Germans showed no tendency to adopt window tracery, in the sense in which it was afterwards understood, nor to divide their windows into compartments by mullions. I do not even know of an instance in any church of the windows being so grouped together

as to suggest such an expedient. All their older windows, on the contrary, are simple round-headed openings, with the jambs more or less ornamented by nook-shafts and other such expedients. At the end of the 12th and beginning of the 13th century they seem to have desired to render the openings more ornamental, probably because



738. Windows from Sion Church, Cologne. (From Boisseree.)

739. Windows from St. Quirinus at Neuss. (From Boisseree.)

tracery had to a certain extent been adopted in France and the Netherlands at that period. They did this first by foiling circles and semicircles; the former a pleasing, the latter a very unpleasing, form of window, but not so bad as the three-quarter windows—if I may so call them—used in the church of Sion at Cologne (Woodcut No. 738) and elsewhere: these, however, are hardly so

objectionable as the fantastic shapes they sometimes assumed, as in the examples (Woodcut No. 739), taken from St. Quirinus at Neuss. Many others might be quoted, the forms of which are constructively bad without being redeemed by an elegance of outline that sometimes enables us to overlook their other faults. The more fantastic of these, it is true, were seldom glazed, but were mere openings in towers or into roofs. These windows are also generally found in transition specimens, in which men try experiments before settling down to a new course of design. Notwithstanding this, they are very objectionable, and are the one thing that shakes that confidence which might otherwise be felt in the power of the old German style to have perfected itself without foreign aid.

■

CHAPTER V.

POINTED STYLE IN GERMANY.

CONTENTS.

History of style—St Gereon, Cologne—Churches at Gelnhausen—Marburg—
Cologne Cathedral—Freiburg—Strasburg—St Stephen's, Vienna—Nuremberg
—Muhlhausen—Erfurt

It is scarcely necessary to repeat—what has been already perhaps sufficiently insisted upon—that the Germans borrowed their pointed style from the French at a period when it had attained its highest degree of perfection in the latter country. At all events, we have already seen that the pointed style was commonly used in France in the first half of the 12th century, and that it was nearly perfect in all essential parts before the year 1200, whereas, though there may be here and there a solitary instance of a pointed arch in Germany (though I know of none) before the last-named date, there is certainly no church or building erected in the pointed Gothic style the date of which is anterior to the first years of the 13th century. Even then it was timidly and reluctantly adopted, and not at first as a new style, but rather as a modification to be employed in conjunction with old forms.

This is very apparent in the polygonal part of the church of St. Gereon at Cologne (Woodcuts Nos. 740 and 741), commenced in the first year of the 13th century, and vaulted about the year 1212¹. The plan of the building is eminently German, being in fact a circular nave, as contradistinguished from the French chevet, and is a fine bold attempt at a domical building, of which it is among the last examples. In plan it is an irregular decagon, 55 ft. wide over all, north and south, and 66 ft. in the direction of the axis of the church. Notwithstanding the use of the pointed arch, the details of the building are as unlike the contemporary style of France as is the plan; and are, in fact, nearly a century behind French examples in the employment of all those expedients which give character and meaning to the true pointed style.

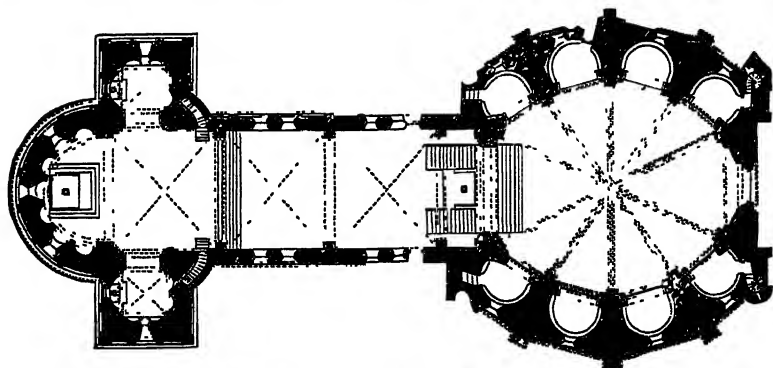
Another church in the same city, St Cunibert, is a still more striking example of this. Commenced in the first decade of the 13th

¹ Boissérée, 'Nieder-Rhein,' p. 36

century, and dedicated in 1248, the very year in which it is said the foundation-stones of the cathedral were laid, it still retains nearly all the features of the old German style, and though pointed arches are introduced, and even tracery to a limited extent, it is still very far



740. Section of St. Gereon, Cologne. (From Boisseree, 'Nieder Rhein.' Scale 50 ft. to 1 in.



741. Plan of St. Gereon, Cologne. (From Boisseree.) Scale 50 ft. to 1 in.

removed from being what can be considered an example of the new style.

More advanced than either of these is the choir of the cathedral of Magdeburg, said to have been commenced in 1208, and dedicated in 1254. This was built, as before mentioned, to supply the place of the

old circular sepulchral church of Otho and his English queen Edith. Hence it naturally took the French chevet form, of which it is, probably, the earliest example in Germany, and which it copies rudely and imperfectly in its details. It possesses the polygonal plan, the graduated buttresses, the decorative shafts, and other peculiarities of the French style, and, if found in that country, would be classed as of about the same age as St Denis. The upper part of the choir and the nave are of very much later date, and will be mentioned hereafter.

A more interesting example of transition than this is the church at



742. East End of Church at Gelnhausen. No scale.

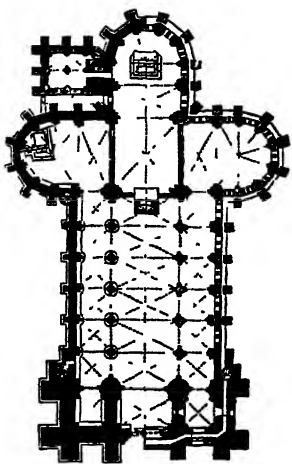
Gelnhausen, unfortunately not of well-known date, but apparently built in the middle of the 13th century, though the choir, it is said, was not finished till 1370. Its interest lies in its originality, for though the pointed arch is adopted, it is in a manner very different from that followed by the French, and as if the architects were determined to retain a style of their own. In general design its outline is very like that of the church at Sinzig (Woodcut No. 713). In its attempts are even made to copy its apsidal galleries, but their purpose is misunderstood, and pillars are placed in front of windows,—a blunder afterwards carried, at Strasburg and else where, to a far more fatal extent.

Taken altogether, the style here exhibited is light and graceful; but it neither has the stability of the old round-arched Gothic, nor the capabilities of the French pointed style. The Liebfrauen church attached to the cathedral at Trèves is another of the anomalous churches of this age (1227 to 1243): its plan has already been given (Woodcut No. 696), and was probably suggested by the form of the old circular building which it supplanted. Perhaps from its proximity to France it shows a more complete Gothic style than either of those already mentioned; still the circular arch continually recurs in doorways and windows, and altogether the uses of the pointed forms and the general arrangement of parts and details cannot be said to be well understood. There is, however, a novelty, truly German in its plan

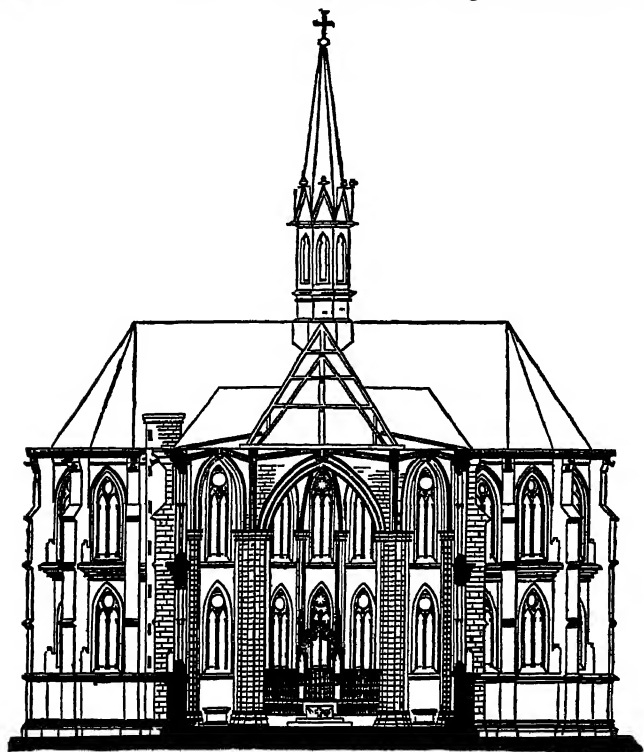
and a simplicity about its arrangement, which make it the most pleasing specimen of the age, and standing on the foundation of the old church of Sta. Helena, and grouped with the Dom or cathedral, it yields in interest to few churches in Germany.

From these we may pass at once to two churches of well-authenticated date, and slightly French in style. The first, that of St. Elizabeth at Marburg, whose name has been already mentioned (p. 258) as adding interest and sanctity to the old castle on the Wartburg. Four years after her death she was canonised, and in the same year, 1235, the foundation was laid of this beautiful church, which was completed and dedicated forty-eight years afterwards, viz, in 1283.

It is a small church, being only 208 ft. in length by 69 in width internally, and though the details are all of

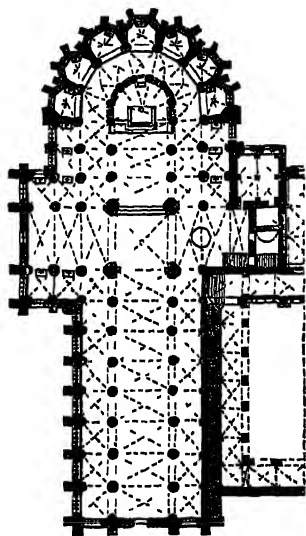


743. Plan of the Church at Marburg.
(From Moller's 'Denkmäler'.)
Scale 100 ft. to 1 in.



Section of Church at Marburg. Scale 50 ft. to 1 in.

good early French style, it still exhibits several *Germanisms*, being triapsal in plan, and the three aisles being of the same height. The latter must be considered as a serious defect, for besides the absence of contrast, either the narrow side-aisles appear too tall or the central one too low. This has also caused the defect of two storeys of windows being placed throughout in one height of wall, and without even a gallery to give meaning to such an arrangement. No French architect ever fell into such a mistake, and it shows how little the builders who could not avoid such a solecism understood the spirit of the style they were copying. The west front with its two spires is somewhat later in date, but of elegant design, and is pleasingly proportioned to the body of the church, which is rarely the case in Germany.



745. Plan of Church at Altenberg
Scale 100 ft. to 1 in.

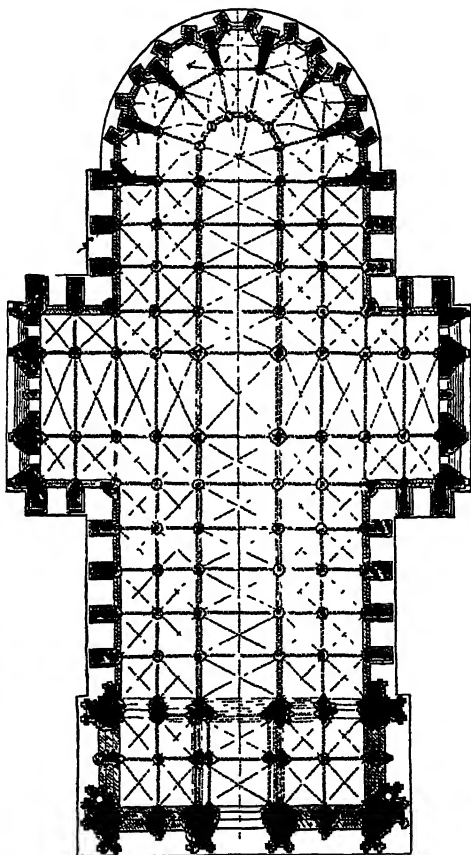
The other church is that at Altenberg, not far from Cologne, on the opposite side of the river Rhine. The foundation-stone was laid in 1255, and the chapels round the choir completed within a few years of that time, but the works were then interrupted, and the greater part of the church not built till the succeeding century. Like all the early churches of the Cistercian Order it is without towers, and is extremely simple in its outline and decorations. It is, in fact, almost a copy of the abbey of Pontigny (Woodcut No. 643), which was built fully a century earlier, and though it does show some advance in style in the introduction of tracery into the windows and more variety of outline externally, it is

remarkable how little progress it evinces in the older parts. In the subsequent erection there are some noble windows filled with tracery of the very best class, which render this church the best counterpart Germany can produce of our Tintern Abbey, which it resembles in many respects. Indeed, taken altogether, this is perhaps the most satisfactory church of its age and style in Germany, and in the erection of which the fewest faults have been committed. It was rescued from ruin by Frederick William IV. of Prussia, but its extensive conventual buildings have been destroyed by fire.

These examples bring us to the great typical cathedral of Germany, that of Cologne, which is certainly one of the noblest temples ever erected by man in honour of his Creator. In this respect Germany has been more fortunate than either France or England; for though in the

number of edifices in the pointed style and in beauty of design these countries are far superior, Germany alone possesses one pre-eminent example in which all the beauties of its style are united.

Generally speaking, it is assumed that the building we now see is that commenced by Conrad von Hochstetten in the year 1248, but more recent researches have proved that what he did was to rebuild or restore the double-apse cathedral of earlier date. The examples just quoted, however, were no other proof available, are sufficient to show that the Gothic style was hardly then introduced into Germany, and but very little understood when practised. It seems that the present building was begun about the year 1270-1275, and that the choir was completed in all essentials as we now find it by the year 1322.¹ Had the nave been completed at the same rate of progress, it would have shown a wide deviation of style, and the western front, instead of being erected according to the beautiful design preserved to us, would have been covered with stump tracery, and other vagaries of the late German school, all of which are even now



745 Plan of Cathedral at Cologne. (From Boisseree.)
Scale 100 French ft. to 1 in.

observable in the part of the north-west tower actually erected. As the church is now complete according to the original design, one of its

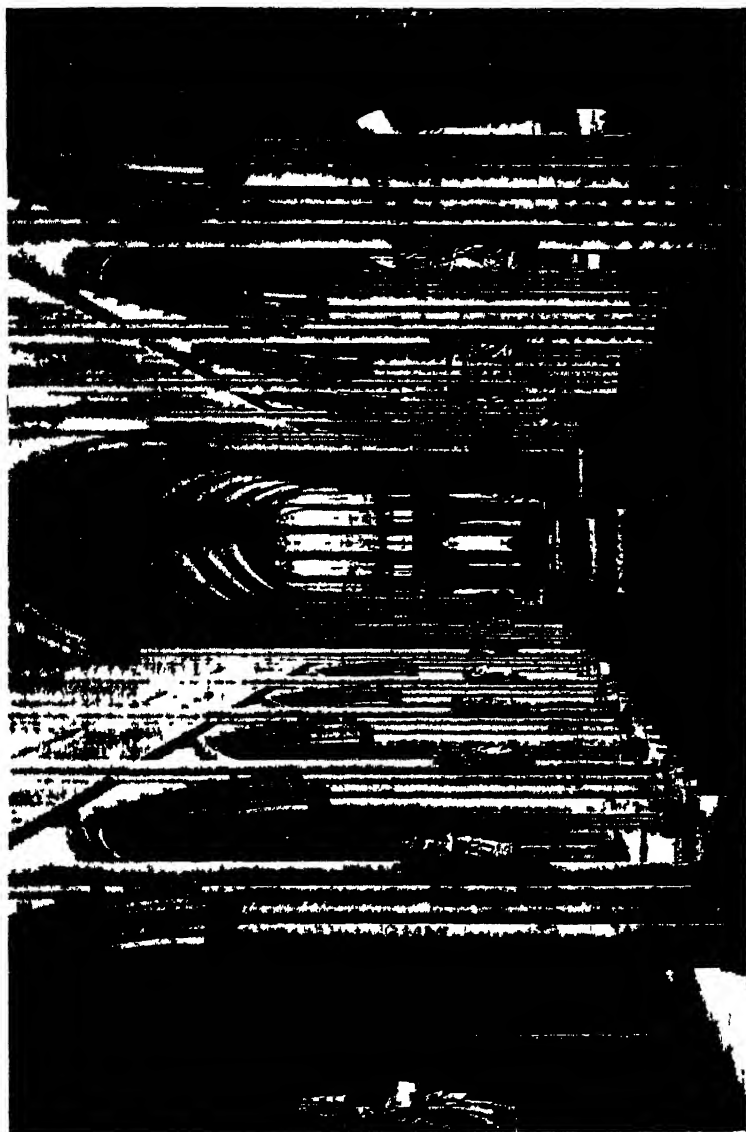
¹ The best *résumé* of the arguments on this question will be found in the controversy carried on by F. de Verneilh, the Baron de Rosier, and M. Boisseree, in Didron's '*Annales Archéologiques*,' vol. vii. *et seq.*

² There is a slight error in the scale of this plan, the artist in reducing it having used the scale of French instead of English feet. It ought to be 1-16th larger.

principal beauties is the uniformity of style that reigns throughout, contrasting strongly as it does with the greater number of Northern cathedrals, whose erection spreads over centuries. In dimensions it is the largest cathedral of Northern Europe; its extreme length being 468, its extreme breadth 275, and its superficies 91,464 ft., which is 20,000 ft. more than are covered by Amiens, and one-fourth more than Amiens was originally designed to cover. On comparing the eastern halves of these two from the centre of the intersection of the transept, it will be found that Cologne is an exact copy of the French cathedral, not only in general arrangement, but also in dimensions, the only difference being a few feet of extra length in the choir at Cologne, which is more than made up at Amiens by the projection of the Lady Chapel. The nave, too, at Cologne is one bay less in length. On the other hand, the German building exceeds the French by one additional bay in each transept, the two extra aisles in the nave, and the enormous substructures of the western towers. All these are decided faults of design into which no French architect would have fallen.

Looking at Cologne in any light, no one can fail to perceive that its principal defect is its relative shortness. If this was unavoidable at least the transept should have been omitted altogether, as at Bourges, or kept within the line of the walls, as at Paris, Rheims, and elsewhere. It is true, our long low English cathedrals require bold projecting transepts to relieve their monotony, but at Cologne their projection detracts both internally and externally from the requisite appearance of length. Indeed, this seems to have been suspected at the time, as the façades of the transepts were the least finished parts of the building when it was left, and the modern restorers would have done well if they had profited by the hesitation of their predecessors, and omitted an expensive and detrimental addition.

Another defect before alluded to is the double aisles of the nave. It is true these are found at Paris, but they were an early experiment. At Bourges the fault is avoided by the aisles being of different heights, but in none of the best examples, such as Rheims, Chartres, or Amiens, would the architects have been guilty of dispersing their effects or destroying their perspectives as is done at Cologne, and now that the whole of the interior is finished these defects of proportion are become more apparent than they were before. The clear width of the nave is 41 ft. 6 inches between the piers, its height 155 ft., or nearly four times the width—a proportion altogether intolerable in architecture. And this defect is made even more apparent here by the aisles being together equal in width to the nave, while they are only 60 ft. in height. Besides the defect of artistic disproportion, this exaggerated height of the interior has the further disadvantage of dwarfing to a painful extent the human beings who frequent it. Even the gorgeous ceremonial of the Catholic Church and their most crowded processions



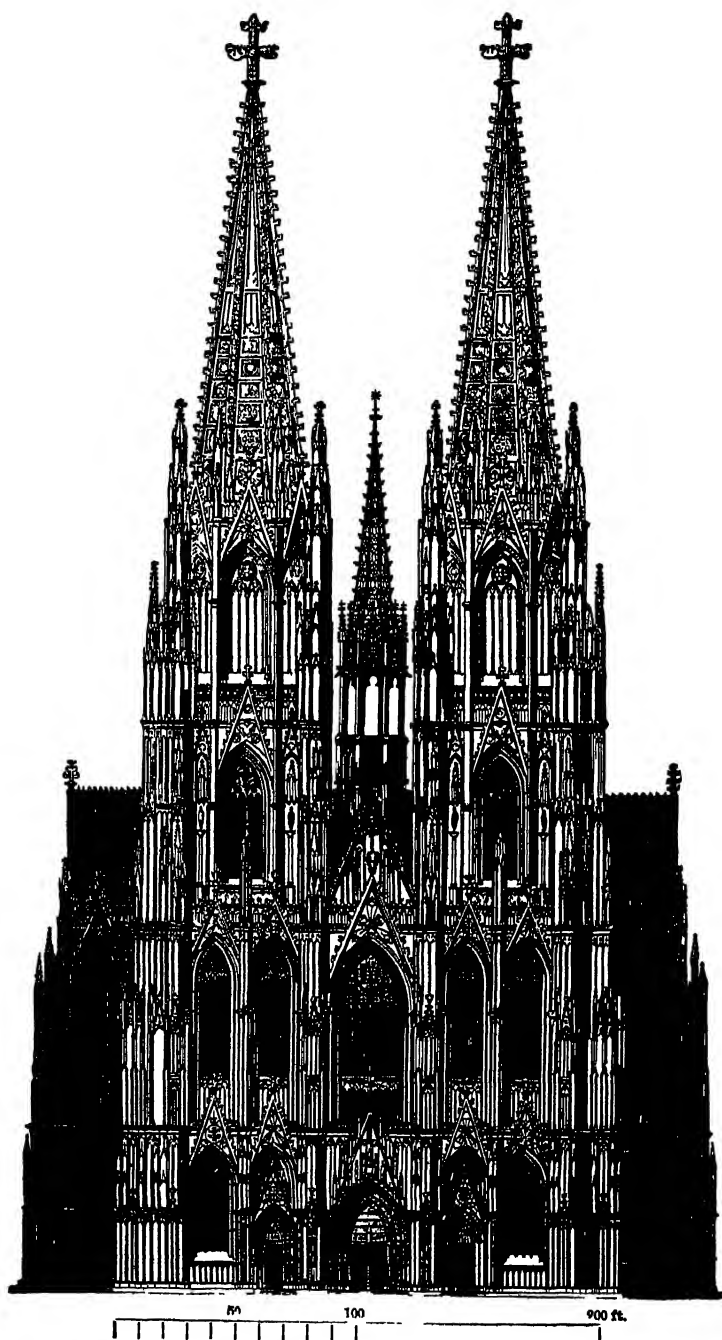
INTERIOR OF COLOGNE CATHEDRAL

lose all their effect by comparison with the building in which they are performed. Were a regiment of Life Guards on horseback to ride down the central aisle at Cologne, they would be converted into pigmies by the 148 ft. of height above them. Lateral spaciousness has not the same dwarfing effect; when all are standing on the same floor, distance does not diminish in a building more than in the open air, and with that effect we are familiar, but great height in a room is unusual, and in proportion as it affects the mind with awe or astonishment does it diminish the appearance of those objects with which we are familiar. Perhaps, however, the most striking defect of the internal design is the want of repose or subordination of parts: 50 pillars practically identical in design, and spaced nearly equally over the floor, and beyond them everywhere a wall of glass. If the four central piers had been wider spaced, or of double the section they now are, or had there been any plain wall or any lateral chapels anywhere, it would have been better. Notwithstanding all these defects, it is a glorious temple; but so mathematically perfect, that not one little corner is left for poetry, and it is consequently felt to be infinitely less interesting than many buildings of far less pretensions.

Externally the proportions are as mistaken, if not more so than those of the interior; the mass and enormous height of the western towers (actually greater than the whole length of the building), now that they are completed, have given to the whole cathedral a look of shortness which nothing can redeem. With such a ground-plan a true architect would have reduced their mass one-half, and their height by one-third at least.¹

Besides its great size, the cathedral of Cologne has the advantage of having been designed at exactly the best age, while, as before remarked, the cathedrals of Rheims and Paris were a little too early, St. Ouen's too late. The choir of Cologne, which we have seen to be of almost identical dimensions with that of Amiens, excels its French rival internally by its glazed triforium, the exquisite tracery of the windows, the general beauty of the details, and a slightly better proportion between the height of the aisles and clerestory. But this advantage is lost externally by the forest of exaggerated pinnacles which crowd round the upper part of the building, not only in singular discord with the plainness of the lower storey, but hiding and confusing the perspective of the clerestory, in a manner as objectionable in a constructive point of view as it is to the eye of an artist. Decorated construction is, no doubt, the great secret of true architecture; but like other good things, this may be overdone. One-half of the abutting means here employed might have been dispensed with, and the other half disposed so simply as to do the work without the

¹ Within the last few years also the cathedral has been isolated on all sides, | so that it has now the appearance of an overgrown monster—Ed.



confusion produced. When we turn to the interior to see what the vault is, which this mass of abutments is provided to support, we find it with all the defects of French vaulting—the ribs few and weak, the ridge undulating, the surfaces twisted, and the general effect poor and feeble as compared with the gorgeous walls that support it. Very judicious painting might remedy this to some extent; but as it now stands the effect is most unpleasing.

The noblest as well as the most original part of the design of this cathedral is the western façade (Woodcut No 747). As now completed, it rises to the height of 510 ft. This front, considered as an independent feature, without reference to its position, is a very grand conception. It equals in magnificence those designed for Strasburg and Louvain, and surpasses both in purity and elegance, though it is very questionable if the open work of the spires is not carried to far too great an extent, and even the lower part designed far too much by rule. M. Boisserée says, “the square and the triangle here reign supreme,” and this is certainly the case: every part is designed with the scale and the compasses, and with a mathematical precision perfectly astonishing: but we miss all the fanciful beauty of the more irregular French and English examples. The storeyed porches of Rheims, Chartres, and Wells comprise far more poetry within their limited dimensions than is spread over the whole surface of this gigantic frontispiece. Cologne is a noble conception of a mason, but these were the works of artists in the highest sense of the word.

It is certainly to be regretted that there is no contemporary French example to compare with Cologne, so that we might have been enabled to bring this to a clearer test than words can do. St. Ouen's comes nearest to it in age and style, but it is so very much smaller as hardly to admit of comparison; for though the length of the two churches is nearly identical, the one covers 91,000 square feet, the other little more than half that, or only 47,000. Yet so judicious is the disposition of the smaller church, and so exquisite its proportions, that notwithstanding the late age of its nave, and the inappropriateness of its modern front, it is internally a more beautiful and almost as imposing a church as that of Cologne, and externally a far more pleasing study as a work of art. Had Marc d'Argent commenced his building at the same time as the builder of Cologne, and seen it completed, or had he left his design for it prior to 1322, even with its smaller dimensions, it would have been by far the nobler work of art of the two. These, however, are after all but vain speculations. We find in Cologne the finest specimen of masonry attempted in the Middle Ages; and notwithstanding its defects, we now see in the completed design a really beautiful and noble building, worthy of its builders and of the religion to which it is dedicated.

At Freiburg, in the Breisgau, there is a contemporary example,



commenced in 1283, and finished in 1330. This fine spire is identical in style with the Cologne examples, and perhaps on the whole even better, certainly purer and simpler both in outline and detail, though it is not clear that the richer ornament of Cologne would not be more in accordance with this description of lace-work.

The total height of the spire at Freiburg is 385 ft. from the ground, and is divided into three parts. The lower portion is a square, plain and simple in its details, with bold prominent buttresses, and containing a very handsome porch. The second is an octagon of elegant design, with four triangular pinnacles or spirelets at the angles, which break most happily the change of outline, and out of this rises, somewhat abruptly, the spire, 155 ft. in height. An English architect would have placed eight bolder pinnacles at its base; a French one would have used a gallery, or taken some means to prevent the cone from merely resting on the octagon. This junction between the two is poor and badly managed, but after all, the question is, whether the open spire is not a mistake, which even the beauty of detail found here cannot altogether redeem. It is not sufficient to say it is wrong, because a spire is and ought to be a roof, and this is not. It is true a spire was originally a roof, and still retains the place of one, and should consequently suggest the idea; but this is not absolutely indispensable; and if the tower be insufficient to support the apparent weight of a solid spire, or for any such reason, the deviation would be excusable, but such is not the case here, nor at Cologne.

Indeed, it seems that the whole is only another exemplification of the ruling idea of the German masons, an excessive love of *tours de force*, and an inordinate desire to do clever things in stone, which soon led them into all the vagaries of their after Gothic; here it is comparatively inoffensive, though I still feel convinced that if one-half the openings of the tracery were filled up, or only a central trefoil or quatrefoil left open in each division, the effect would be far more pleasing and satisfactory.

In the spires that flank the transepts, the open work is wholly unobjectionable, owing to the smallness of the scale; but in the main and principal feature of the building the case is very different: dignity and majesty are there required; and the flimsiness, as it might almost be called, of the open work, goes far to destroy this.

The nave of this church is a fair specimen of the German Gothic of the age, being contemporary with the spire, or perhaps of a little earlier date; but the want of the triforium internally, and the consequent heavy mass of plain wall over the pier-arches, give it a poor and weak appearance. The choir, a work of the 15th century, runs into all the extravagance of the later German style, its only merits being its size and lightness.

Of the other open-work spires of Germany, one of the most beau-



Be this as it may, the details are pure and beautiful, and the design of singular boldness. The central aisle is 55 ft. wide from centre to centre of the piers, and the side aisles 33 ft. wide, while the corresponding dimensions at Cologne are only 49 ft. and 25 ft. respectively. Notwithstanding this, the vault at Strasburg is only 101 ft. in height against 155 ft. at Cologne. The consequence is, that measured from centre to centre the central aisle at Cologne is more than three times as high as it is wide, while at Strasburg it is less than twice. The whole width of the more northern example is practically equal to the height—at Strasburg it is one-fifth less; but the one having only three aisles, while the other has five, makes all these discrepancies still more apparent. Had the architect at Cologne, instead of introducing an external aisle, only increased the dimensions of Strasburg by one-fifth, retaining all its proportions, he would both externally and internally have produced the noblest building of the Middle Ages. As it is, the smaller nave of Strasburg is infinitely superior in proportion and apparent dimensions to that of the larger building.

This comparative lowness of the nave at Strasburg is greatly in its favour, as the length, which is only 250 ft., is made the most of, and the shortness of the cathedral is not perceived.

It does not appear that Erwin von Steinbach had anything to do with this part of the structure, beyond repairing the vault when damaged by fire in 1298, at which time he also introduced some new features of no great importance, but sufficient in some degree to confuse the chronology. What he really did, was to commence the western façade, of which he laid the foundation in 1277, and superintended the erection till his death, 41 years afterwards, when he was succeeded by his sons, who carried it up to the platform in 1365.

The Germans, however, wishing to find a name to place in their Walhalla, and mistaking entirely the system on which buildings were carried out in the Middle Ages, had tried to exalt Erwin into a genius of the highest order, ascribing to him not only the nave, but also the design of the spire as it now stands. If he had anything to do with the former, he must have been promoted at a singularly early age to the rank of master-mason, and have been a most wonderfully old man at the time of his death; and if he designed the spire, he must have had a strangely prophetic spirit to foresee forms and details that were not invented till a century after his death! The fact is, Erwin did no more than every master-mason of his age could do. There is no novelty or invention in his design, and only those mistakes and errors which all Germans fell into when working in pointed Gothic. In the first place, the façade is much too large for the church, which it crushes and hides; and instead of using the resources of his art to conceal this defect, he made the vault of the ante-chapel equal in height to that of Cologne, the result being that the centre of the great western rose-window is

just as high as the apex of the vault of the nave. It is true it can be seen in perspective from the floor of the church, but the arrangement appears to have been expressly designed to make the church look low and out of proportion.

The spiral staircases at the angles of the spire are marvels of workmanship, and the whole is well calculated to excite the wonder of the vulgar, though it must be condemned by the man of taste as very inferior in every respect to the purer designs of an earlier age.

It is not known whether the original design comprised two towers, like those of the great French cathedrals, or was intended to terminate with a flat screen-like façade. Probably the latter was the case, as mass, and not proportion, seems to have been this architect's idea of magnificence.

The spire that now crowns this front, rising to a height of 468 ft. from the ground, was not finished till 1439, and betrays all the faults of its age. The octagonal part is tall and weak in outline, the spire ungraceful in form and covered with an unmeaning and constructively useless system of tracery.

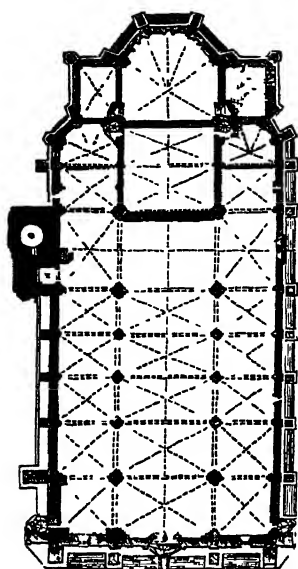
Besides the fault of proportion for which the design of Erwin is clearly blamable, all his work betrays the want of artistic feeling which is characteristic of the German mason. Every detail of the lower part of the front is wire-drawn and attenuated. The defect of putting a second line of unsymmetrical tracery in front of windows, the first trace of which was remarked upon in speaking of Gelnhausen, is here carried to a painful extent. The long stone bars which protect and hide the windows are admirable specimens of masonry, but they are no more beauties than those which protect our kitchen windows in modern times. The spreading the tracery of the windows over the neighbouring walls, so as to make it look large and uniform, is another solecism found both here and at Cologne, utterly unworthy of the art, and not found in, I believe, a single instance in France and England, where the style was so much better understood than in Germany.

Altogether the façade of the cathedral at Strasburg is imposing from its mass, and fascinating from its richness; but there is no building in either France or England where such great advantages have been thrown away in so reckless a manner and by so unintelligent a hand.

The cathedral at Ratisbon is a far more satisfactory specimen of German art than that of Strasburg. It is a small building, only 272 ft. in length, and 114 in breadth internally, and covering about 32,000 sq. ft. It was commenced in the year 1275; the works were continued for more than two centuries, and at last abandoned before the completion of the church.

As will be seen from the plan (Woodcut No. 751), it is much more German than French in its arrangements, having three apses instead

of a chevet. The side-aisles are wide in proportion to the central one, the transept subdued, and altogether it is more like the old round-arched Gothic basilica than the French church. It has two storeys of windows



751. Plan of Ratisbon Cathedral.
Scale 100 ft to 1 in

in the apse, as at Marburg, where the arrangement is unmeaning and offensive, while here the nave has side-aisles and a clerestory thus the upper windows of the apse are a continuation of the clerestory windows of the nave, and the effect is not unpleasing. The details of this church are singularly pleasing and elegant throughout, and produce on the whole a harmony not commonly met with in German churches of this age and style.

If size were any real test of beauty, the minster at Ulm ought to be one of the finest in Germany, being just twice as large as that at Ratisbon, covering 63,800 ft. So far also as constructive merit is concerned, it is perhaps the best, for though I have no plan I can quite rely upon, I believe that not more than one-fifteenth of the area is occupied by the supports, nor is this church surpassed

by many in sharp and clever mechanical execution of the details. With all this it would be difficult to find a colder and more unimpressive design than is here carried out, both internally and externally, it is the work of a very clever mason, but of a singularly bad artist. The freemasons had, when it was founded (1377), got possession of the art in Germany; and here they carried their system to its acmé, and with a result which every one with the smallest appreciation of art can perceive at once. It is said that, in the original design, the outer range of pillars, dividing the side-aisle into two, was to have been omitted, which would have made it even worse than it is. Its one western tower, now that it is completed, is perhaps more beautiful than that at Strasburg; and, besides, being actually higher (529 ft), appears taller from standing alone. Its form, too, is more pleasing; and, though its details are far more suited for execution in cast iron than in stone, rivals, and perhaps even surpasses, those at Antwerp or Mechlin.

St. Stephen's of Vienna (Woodcut No. 752), ranks fourth or fifth among the great churches of Germany, both for size and richness of decoration. Its length, internally, is 337 ft., its width 115, and it covers about 52,000 square ft. It is situated too near the eastern edge of the province for us to expect anything very pure or perfect as

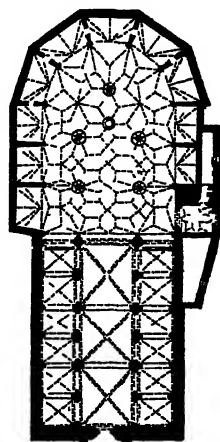


an example of Gothic art, and it certainly sins against every canon that a purist would enact. The three aisles are nearly equal in width and height,—there is no clerestory—no triforium. There are two very tall windows in each bay. The pillars are covered with sculpture, more remarkable for its richness than its appropriateness, and the tracery of the vaults is very defective. Yet, with all these faults, and many more, no one with a trace of poetry in his composition can stand under the great cavernous western porch and not feel that he has before him one of the most beautiful and impressive buildings in Europe. A good deal of this may be owing to the colour. The time-stain in the nave is untouched, the painted glass perfect, and the whole has a venerable look, now too rare. The choir is being smartened up, and its poetry is gone. Meanwhile, no building can stand in more absolute contrast with the cathedral at Cologne than this one at Vienna. The former fails because it is so coldly perfect that it interests no one; this impresses, though offending against all rules, because it was designed by a poet. We feel as if the Rhenish architect would certainly have been Senior Wrangler at Cambridge had he tried, but that his Danubian brother was fit to be Laureate at any court in Germany.

It is the same with the exterior. The one great roof running over the three aisles, and covering all up like an extinguisher, ought to be abominable, but it gives a character to the whole that one would be sorry to miss, and is not out of harmony with the exceptional character of the whole building. The great glory of this church consists in its two spires, one of which is finished, the other only carried up to about one-third of its intended height. Their position is unfortunate, as they are placed where the transepts should be, so that they neither form a façade nor dignify the sanctuary; they occupy, in fact, the position of the lateral entrances which the Germans were so fond of, and are the principal portals of the building. In itself, however, the finished spire is the richest, and, excepting that at Freiburg, perhaps the most beautiful of all those in Germany. Its total height, exclusive of the eagle, is 441 ft., rising from a base about 64 ft. square, gradually sloping from the ground to the summit, where it forms a cone of the unprecedentedly small angle of little more than 9 degrees. The transition from the square base to an octagonal cone is so gradual and so concealed by ornament, that it is difficult to say where the tower ends and the spire begins. This gives a confusion and weakness to the design by no means pleasing. Indeed the whole may be taken as an exemplification of all the German principles of design carried to excess, rather than as a perfect example of what such an object should be. It deserves to be remarked that there is no open work in the spire, though, from its own tenacity and the richness of the tower, there is no example where it would have been less objectionable.

Had the architects of Eastern Germany continued to practise the style a little longer before the introduction of the Renaissance art, it is probable they would have gone further from the French forms than they did even in St. Stephen's. Among the novelties they did employ, one of the most remarkable was the invention of flat-roofed choirs. The plan of the Franciscan church at Salzburg (Woodcut No. 753) will explain what is meant by this.¹ The nave of the church is a very beautiful example of the round-arched style, so pure and elegant in its details as to betray its proximity to Italy, and without a trace of pointed architecture, though dating as late as 1230-1260. In the year 1470 it was determined to rebuild the choir. In France this would have been effected by an extended range of chapels round a chevet; in England by several bays added to the length. In Germany they did better: they placed five slender piers on the floor: these, though 70 ft. in height, are less than 4 ft. in diameter, yet they appear sufficient for the task they have to perform, while their slenderness prevents them from interrupting the view in any direction. From these rose a vault, extending on the same level from wall to wall with a tree-like growth, from each of these pillars—without any exertion or constructive difficulty; the choir thus forms a hall 66 ft. wide by 160 in length, exclusive of the side-chapels which surround it in two storeys. A dome in that position might have been more sublime; but passing through the confined vestibule of the nave the expansion into the light and airy choir produces one of the most magical effects to be found in any church in Europe. The details of the vault, as is only too usual at that age, are not constructively correct; but if this design had been carried out with English fan-tracery nothing could well be more beautiful. In plan and dimensions this choir very nearly resembles Henry VII.'s Chapel at Westminster; but in design the German surpasses the English example to a greater extent than it falls short of it in beauty of detail.

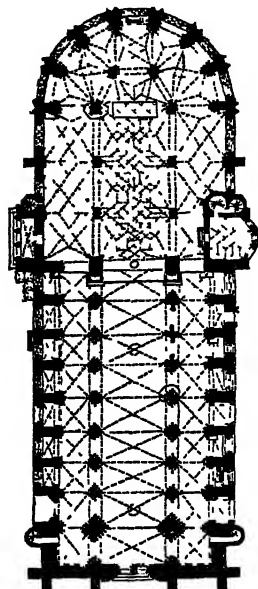
St. Lawrence's Church at Nuremberg is a larger and better known example of the same class of design. It was commenced in 1275, and finished after 202 years' labour. The style of this church is consequently much more uniform; and though not large, being only 300 ft. long by 100 in width, its proportions are so good that it is a very



753. Plan of the Franciscan Church at Salzburg.

¹ From the 'Jahrbuch der Central Commission zur Erhaltung der Baudenkmale, vol. ii. p. 37.

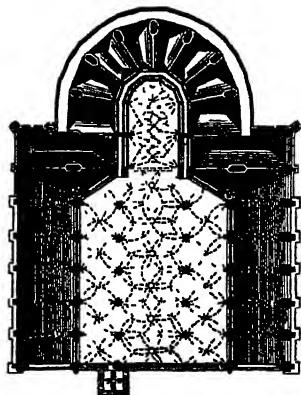
beautiful and impressive example of the style. It is a little too late in its details, but beautiful in its arrangements. The view, standing by the pulpit and looking towards the east, is as poetic as that of St. Stephen's, and as spacious as at Salzburg. The two rows of windows round the apse are a defect that might easily have been avoided, but which the beauty of the painted glass goes far to redeem.



754. Plan of St. Lawrence's Church, Nuremberg

Externally, the western front, though on a small scale, only 250 ft. in height, is better proportioned and more pleasing in its detail than almost any other double-spire façade in Germany that can be named. The real defect of the exterior is the overwhelming roof of the nave and the want of external buttresses, which, with bold pinnacles, would have gone far to correct its heaviness.

St. Sebald's Church at Nuremberg seems originally to have been a chevet turned the wrong way, to the eastern end of which a choir of somewhat exaggerated dimensions was added at a later age (1303-1377). This choir was not only placed unsymmetrically as regards the axis of the older part, but also as regards its own parts. It is, however, lofty and airy, with the same arrangement as to vaulting as the two last examples, but, being lighted by a single row of tall windows, it avoids the defect of the two-storeyed arrangement. These windows are 50 ft. high, and barely 8 ft. in width, which is far too narrow in proportion. Their mullions are nearly 40 ft. in height; and, though triumphs of German masonic skill, are most unpleasing features of architectural design.

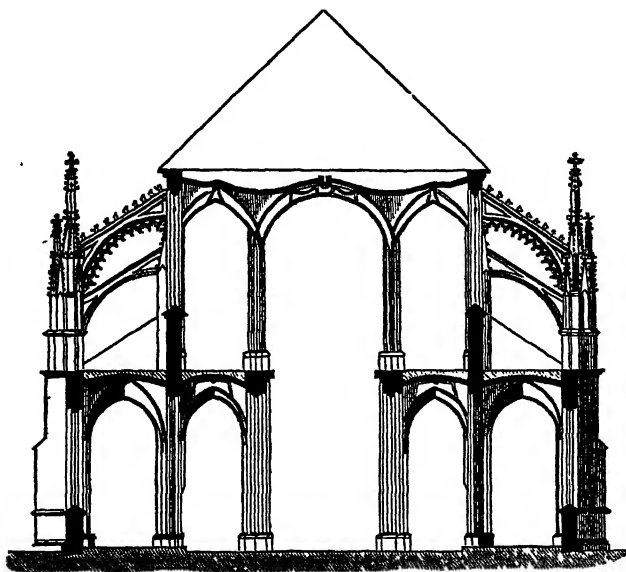


755. Plan of the Church at Kuttenberg, taken above the roof of the aisles. Scale 100 ft. to 1 in.

When the Germans had once mastered this invention in vaulting they applied it wherever an opportunity presented itself, and in one instance at least, to a five-aisled basilica. It is true the church of St. Barbara at Kuttenberg,¹ in Bohemia, is only a fragment, but it is a very remarkable one. The building

¹ See 'Mittelalterliche Kunstdenkmale Ostereichs,' vol i. p. 171.

was apparently commenced about the year 1358, and completed, as far as we now see it, in 1548. Its dimensions are smaller than those of Cologne, being only 126 ft. across its five aisles instead of 150; but its great peculiarity is that the roof of the first aisle next the central one on each side is converted into a great gallery, as shown in the section (Woodcut No. 756), and the vault carried flat above the



756.

Section of the Church of St. Barbara, Kuttentberg. Scale 50 ft. to 1 in.

three. To a certain extent this prevents the clerestory windows from being so easily seen from all parts of the floor of the church, but when seen it is at a better angle; and, altogether, a play of light and shade and a poetry of effect is introduced which more than compensates for this. The double apse may be the most characteristic feature of German Mediæval churches, but this seems to be the highest and most poetic of their inventions.

The church of St. Veit at Prague is very similar to that at Kuttentberg. It was commenced about the year 1346, and, like it, was meant to imitate and rival Cologne. Its proportions, however, are better, being only 105 ft. high, internally, with a width of 130 ft., but its details, as might be expected from its date, are very far inferior to those of its northern rival. Like Kuttentberg, it is now only a choir—a fragment of what was intended; and it neither possesses the poetry of its Bohemian rival, nor the perfect masonry of Cologne, and perhaps more resembles Beauvais than any other church of its age.

In Bavaria there are several churches erected later in the style, which, in spite of many defects of detail, are still very imposing

edifices. The cathedral at Munich is a well-known example of this style, but a better specimen is the St Martin's church at Landshut (1404). As in almost all these examples, the three aisles are the same height, and outside are covered by one gigantic roof. Internally this gives great spaciousness, but externally the exaggerated height of the windows and the size of the roof are great defects. The most beautiful feature at Landshut is the spire, which rises to the height of 425 ft., and is as gracefully and appropriately designed as any other which has been completed in Germany of its age. Though not so rich as St. Stephen's at Vienna, it has not its confusion of outline, and also avoids the somewhat ambiguous beauties of the open-work spires so frequent in this country.

In adopting the pointed-arched style, the Germans generally abandoned their favourite double-apse arrangement; and though they seldom adopted the whole of the chevet, preferring their own simple apse to it, it seems to have been only, or at least generally, where an old round Gothic double-apse church existed previously, that this arrangement was continued after the commencement of the 13th century. Naumburg, the nave of which was commenced about the year 1200, is an instance of this. This was no doubt inserted between two older apses, both of which were rebuilt at a later age, forming two very beautiful and extensive choirs. The whole makes a very pleasing and interesting church, though there certainly is an architectural incongruity in entering by the side, and the double-apse arrangement is unfamiliar and nearly unintelligible to us at the present time.

A still better example is the cathedral at Bamberg, which, judging from its date, ought to be in the complete pointed style. Though its east end dates from 1220, and the west 1257, it is still so completely transitional, and the pointed form so timidly used, that in France it would certainly be said that there was a mistake of at least a century in these dates. It is nevertheless a very fine church; and its four elegant towers flanking the two apses give it a local and at the same time a dignified character which we often miss in the imitations of French churches, too common at this age. At Naumburg unfortunately only three towers exist, the fourth never having been erected, which considerably mars the effect when comparing it with the more complete edifice at Bamberg.

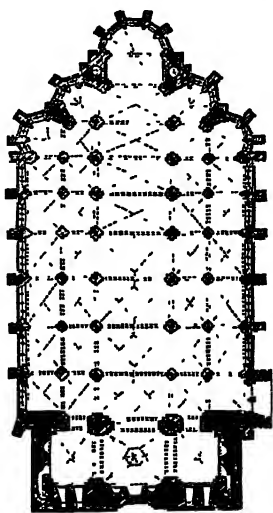
Augsburg is another example of this class; although of good age, the rebuilding having commenced in 1366, it is one of the ugliest and worst-designed buildings in Germany, with nothing but its size to redeem it. It is peculiar in having a chevet at one end and an apse at the other.

The principles of the French schools of art seem to have prevailed to a much greater extent in the North of Germany, and we have in consequence several churches of more pleasing design than those last

mentioned. Among these is the cathedral at Halberstadt, a simple but beautiful church, not remarkable for any very striking peculiarities, but extremely satisfactory in general effect. The great church, too, at Xanten may be quoted as another very favourable specimen, though far more essentially German in its arrangement. The western front is older than the rest, and is German, wholly without French influence. It has no central entrance, but has two bold massive towers. The church behind these is of the latter part of the 13th and the 14th centuries. It is generally good in detail and proportion, but is arranged, as seen in the plan, in a manner wholly different from the French method, though in a form common in all parts of Germany. The polygonal form is retained both for the apse and for the chapels, but without adopting the chevet with its surrounding aisle, nor the absolute seclusion of the choir as a priestly island round which the laity might circulate, but within whose sacred precincts they were not permitted to enter. It is observable that in those districts where chevets are most frequent, generally speaking, the Catholic religion has had the firmest hold. On the other hand, where the people had declined to adopt that arrangement, it was a sign that they were ripe for the Reformation, which accordingly they embraced as soon as the standard of rebellion was raised.

In the South of Germany we have already had occasion to remark on the tendency to raise the side-aisles to the same height as the central one, which eventually became the rule in the great brick churches of Munich and other parts of Bavaria, the piers or pillars becoming mere posts supporting what was practically a horizontal roof. In the north the tendency seems to have been the other way—to exaggerate the clerestory at the expense of the aisles. A notable example of this is found in the nave at Magdeburg, where the side-aisles are practically little more than one-third of the whole height of the church; and there being no triforium, the clerestory windows rest apparently on the vault of the side-aisle. This has now no doubt a disagreeable effect, but when filled with painted glass the case must have been different, and the effect of this immense screen of brilliant colours must have been most beautiful.

A better example of this arrangement is found in the cathedral at Metz, where, from its proximity to France, the whole style was better understood, and the details are consequently more perfect. Externally,



757 Plan of Church of St. Victor at Xanten. Scale 100 ft to 1 in.

it must be confessed, the immense height of the clerestory gives to the church a wire-drawn appearance, very destructive of architectural beauty, but internally, partly from the effect of perspective and partly from the brilliancy of such glass as remains, criticism is disarmed. The result, however contrary to the rules of art, is most fascinating; and at all events, though an error, it is in a far more pleasing direction than that of the southern architects.

These may perhaps be considered the great and typical examples of the pointed style as applied to church architecture in Germany, but besides these there are numerous examples scattered all over the country, many of which, as being less directly under French influence, display an originality of design, and sometimes a beauty, not to be found in the larger examples.

Among these is the Cathedral of St George at Limburg on the Lahn. This building belongs to the early part of the 13th century, and exhibits the transitional style in its greatest purity, and with less admixture of foreign taste than is to be found in almost any subsequent examples. Though measuring only about 180 ft. by 75, it has, from its crown of towers and general design, a more imposing appearance externally than many buildings of far larger dimensions. The interior is also singularly impressive.

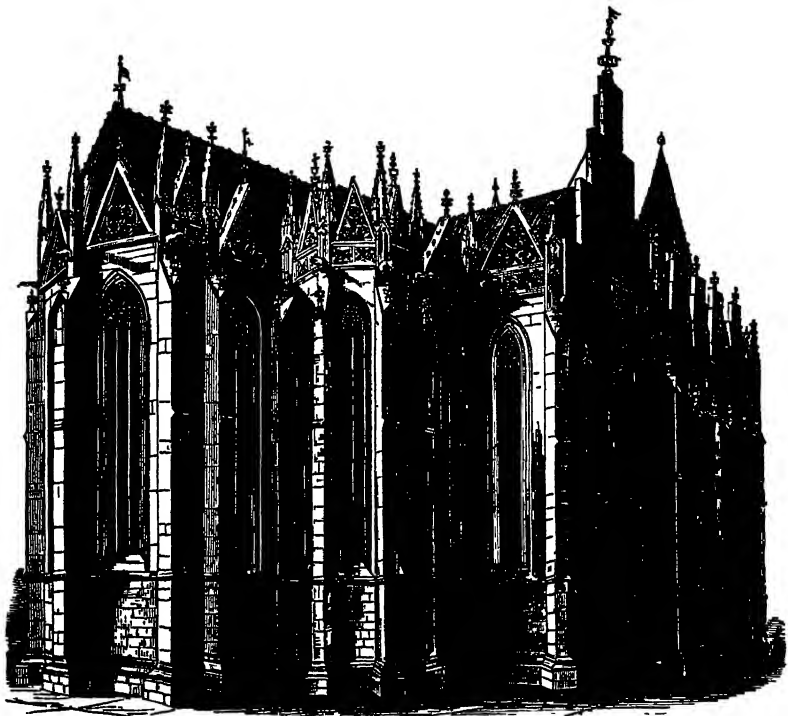
The church of St. Emmeran at Ratisbon, a square building of about the same age and style, is chiefly remarkable for the extensive series of galleries which surround the whole of the interior, being in fact the application of the system of double chapels (see p. 241) to a parish church, not that vaulted galleries are at all rare in Germany, but that generally speaking they are insertions, though here they seem part of the original design.

At Schulpforta in Saxony there is a very elegant church of the best age, and both in design and detail very different from anything else in Germany. Its immense relative length gives it a perspective rarely found in this country, where squareness is a much more common characteristic.

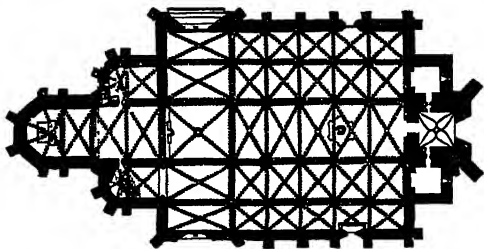
At Oppenheim, in the Bavarian Rhenish Palatinate, is a church the choir of which is a simple and pleasing German apse with elongated windows. The nave, four bays in length, is an elaborate specimen of German ornamentation in its utmost extravagance, and, considering its age, in singularly bad taste, at least the lower part. The clerestory is unobjectionable, but the tracery of the windows and walls of the side-aisles shows how ingeniously it was possible to misapply even the beautiful details of the early part of the 14th century. In St. Werner's Chapel, Bacharach, on the Rhine, this is avoided, and, as far as can be judged from the fragment that remains, it must, if it ever was completed, have been one of the best specimens of German art in that part of the country. The nave of the cathedral

at Meissen, though marked by many of the faults of German design, is still a beautiful example of well-understood detail.

As a purely German design nothing can surpass the Maria Kirche at Mühlhausen (Woodcut No. 759). The nave is nearly square, 87 ft. by 105, and is divided into five aisles by four rows of pillars support-



.758. View of Maria Kirche at Mühlhausen (From Puttrich, 'Denkmäler.')



759. Plan of Maria Kirche at Mühlhausen. Scale 100 ft. to 1 in.

ing the vaults, all at the same level. To the west is a triple frontispiece, and to the east (Woodcut No. 759) the three apses, which form so favourite an arrangement with the Germans. Externally its attenuation is painful to one accustomed to the more sober work of French architects ; but this fault is here not carried to anything like the

excess found in other churches. Internally the effect is certainly pleasing, and altogether there are perhaps few better specimens of purely German design in pointed architecture. The church of St.

Blasius, in the same town, is far from being so good an example of the style.

The cathedral at Erfurt is a highly ornamented building, but though possessing beautiful details in parts, yet it shows the slenderness of construction which is so frequent a fault in German Gothic buildings. The church of St Severus in the same town resembles that at Muhlhausen, but possesses so characteristic a group of three spires¹ over what we would consider the transept—or just in front of the apse—that it is illustrated (Woodcut No. 760). It certainly looks like a direct lineal descendant from the old Roman basilican apse grown into Gothic tallness. Though common in Germany, placed either here or at the west front, I do not know of any single example



760 St Severus Church at Erfurt. (From Patrich, 'Denkmäler.'

of such an arrangement either in France or England.

To the same class of square churches with slightly projecting chancels belongs the Frauen Kirche at Nuremberg, one of the most

¹ The façade designed for the cathedral at Louvain (mentioned p 196) was identical with this group of spires in arrangement, though on a much larger scale, and infinitely richer in ornament.

ornate of its kind, and possessing also in its triangularly formed porch another peculiarity found only in Germany. The principal entrances to the cathedrals of Ratisbon and Erfurt are of this description—the latter being the richest and boldest porch of the kind

One of the best known examples of the daring degree of attenuation to which the Germans delighted to carry their works is the choir (Woodcut No 724) added in 1353 and 1413 to the old circular church of Charlemagne at Aix-la-Chapelle. As we now see it, the effect is certainly unpleasing, but if these tall windows were filled with painted glass, and the walls and vaults coloured also, the effect would be widely different. Perhaps it might then be even called beautiful; but with scarcely a single exception all those churches are now deprived of this most indispensable part of their architecture, and, instead of being the principal part of the design, the windows are now only long slits in the masonry, giving an appearance of weakness without adding to the beauty or richness of the ornament.

The same remarks apply to the Nicholai Kirche at Zerbst, and the Petri Kirche at Gorlitz, both splendid specimens of this late exaggerated class of German art. By colour they might be restored, but as seen now in the full glare of the cold daylight they want almost every requisite of true art, and neither their size nor their constructive skill suffices to redeem them from the reproach.

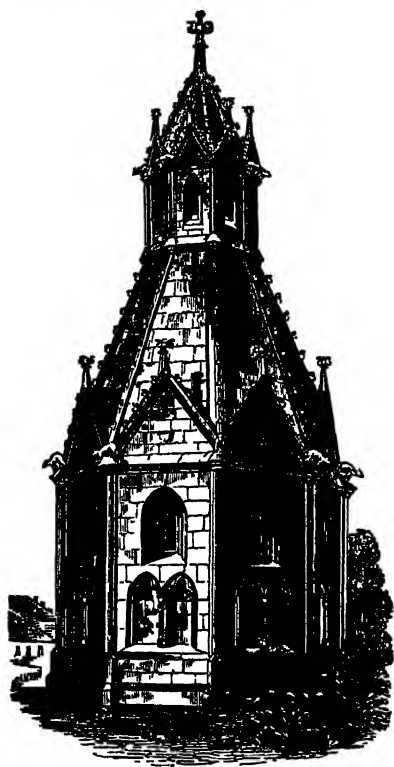
CHAPTER VI.

CONTENTS

Circular Churches—Church Furniture—Civil Architecture.

CIRCULAR CHURCHES.

IN adopting the pointed style, the Germans almost wholly abandoned their old favourite circular form; the Liebfrauen Church at Trèves (Woodcut No 695) being almost the only really important example of a church in the style approaching to a rotunda. Chapter-houses are as rare in Germany as in France, and those that are found are not generally circular in either country. There is a baptistery attached to the cathedral at Meissen, and one or two other insignificant examples elsewhere; but the most pleasing object of this class is the Anna Chapel, attached to the principal church at Heiligenstadt. It is said that it always was dedicated to the sainted mother of the Virgin, but it would require more than tradition to prove that it was not originally designed as a baptistery or a tomb-house. Be this as it may, it is one of the most pleasing specimens of its class anywhere to be found, and so elegant as to make us regret the rarity of such structures.



Anna Chapel at Heiligenstadt (From Puttrich, 'Denkmäler.')

CHURCH FURNITURE.

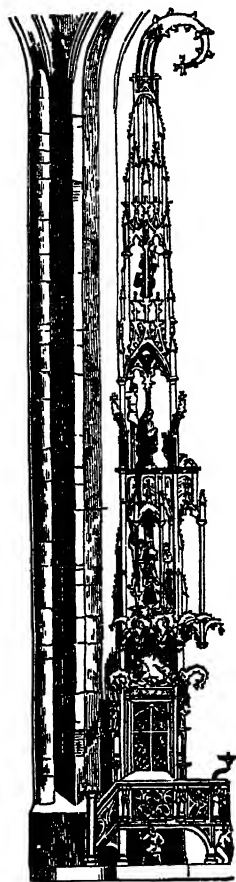
The churches of Germany are not generally rich in architectural furniture. Few rood-lofts are found spanning from pillar to pillar of the choir like that at the Madeleine of Troyes (Woodcut No. 669);

and though some of the screens that separate the choirs of the churches are rich, they are seldom of good design. The two at Naumburg are perhaps as good as any of their class in Germany. Generally they were used as the *lectorium*—virtually the pulpit—of the churches. In most instances, however, the detached pulpit in the nave was substituted for these, and there are numerous examples of richly-carved pulpits, but none of beautiful design. In most instances they are overloaded with ornament, and many of them disfigured with quirks and quibbles, and all the vagaries of later German art.

The fonts are seldom good or deserving of attention, and the original altars have almost all been removed, either from having fallen to decay, or to make way for some more favourite arrangement of modern times.

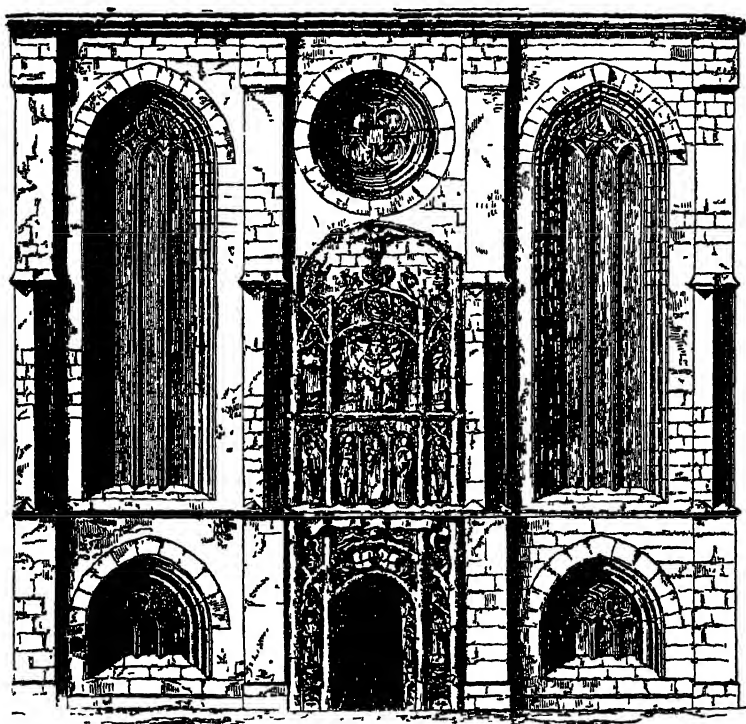
The "Sacraments Hauschen" (the receptacle for the sacred elements of the Communion) is a peculiar article of furniture frequently found in German churches, and in some of those of Belgium, though very rare in France and unknown in England, but on which the German artists seem to have lavished more pains than on almost any other article of church decoration. Those in St. Lawrence's Church at Nuremberg and at Ulm are perhaps the most extraordinary pieces of elaborate architecture ever executed in stone, and have always been looked on by the Germans as chefs-d'œuvre of art. Had they been able, they would have delighted in introducing the same extravagances into external art: fortunately the elements forced them to confine them to their interiors. Nothing, however, can show more clearly what was the tendency of their art, and to what they aspired, than these singular erections, which, notwithstanding their absurdity, considering their materials, must excite our wonder, like the concentric balls of the Chinese. To some extent also they claim our admiration for the lightness and the elegance of their structure. Simplicity is not the characteristic of the German mind. A difficulty conquered is what it glories in, and patient toil is not a means only, but an end, and its expression often excites in Germany more admiration than either loftier or purer art.

It can scarcely be doubted but that much of the extravagance which we find in later German architecture arose from the reaction of



762 Sacraments Hauschen at Nuremberg. (From Chapuy)

the glass-painters on the builders When first painted glass was extensively introduced, the figures were grouped or separated by architectural details, such as niches or canopies, copied literally from the stone ornaments of the building itself Before long, however, the painter, in Germany at least, spurned at being tied down to copy such mechanical and constructive exigencies, he attenuated his columns, bent and twisted his pinnacles, drew out his canopies, and soon invented for himself an architecture bearing the same relation to the stone Gothic around him that the architecture shown on the paintings of Pompeii



763.

Doorway of Church at Chemnitz

bears to the temples and buildings from which it is derived. In Germany, painters and builders alike were striving after lightness, but in this the painter was enabled by his material easily to outstrip the mason. The essentially stone character of architecture was soon lost sight of. With the painter, the finials, the crockets, and the foliage of the capitals again became copies of leaves, instead of the conventional representations of nature which they are and must be in all true art. Like Sir James Hall in modern times, the speculative mind in Germany was not long, when advanced thus far, in suggesting a vegetable theory for the whole art. All these steps are easily to be traced in the

sequence of German painted glass still preserved to us. The more extravagant and intricate the design, the more it was admired by the Germans. It was, therefore, only natural that the masons should strive after the same standard, and should try to realise in stone the ideas which the painters had so successfully started on the plain surface of the glass. The difficulty of the task was an incentive. Almost all the absurdities of the later styles may be traced more or less to this source, and were it worth while, or were this the place, it would be easy to trace the gradual decay of true art from this cause. One example, taken from the church at Chemnitz (Woodcut No 763), must suffice, where what was usual, perhaps admissible, in glass, is represented in stone as literally as is conceivable. When art came to this, its revival was impossible among a people with whom such absurdities could be admired, as their frequency proves to have been the case. What a fall does all this show in that people who invented the old Round-Gothic style of the Rhenish and Lombard churches, which still excite our admiration, as much from the simple majesty of their details as from the imposing grandeur of their whole design!

CIVIL ARCHITECTURE.

If the Germans failed in adapting the pointed style of architecture to the simple forms and purposes of ecclesiastical buildings, they were still less likely to be successful when dealing with the more complicated arrangements of civil buildings.¹ It is seldom difficult to impart a certain amount of architectural character and magnificence to a single hall, especially when the dimensions are considerable, the materials good, and a certain amount of decoration admitted, but in grouping together as a whole a number of small apartments, to be applied to various uses, it requires great judgment to ensure that every part shall express its own purpose, and good taste to prevent the whole degenerating into a mere collection of disjointed fragments. These qualities the Germans of that age did not possess. Moreover, there seems to have been singularly little demand for civil edifices in the 13th and 14th centuries. It is probable that the free cities were not organised to the same extent as in Belgium, or had not the same amount of manufacturing industry that gave rise to the erection of the great halls in that country; for, with the exception of the Kaufhaus at Mayence, no example has come down to our days that can be said to be remarkable for architectural design. Even this no longer exists, having been pulled down in 1812. It was but a small building, 125 ft. in length by 92 in width at one end, and 75 at the other. It was built in the best time of German pointed architecture, and was a pleasing specimen of its class. At Cologne there is a sort of Guildhall, the Gurzenich, and

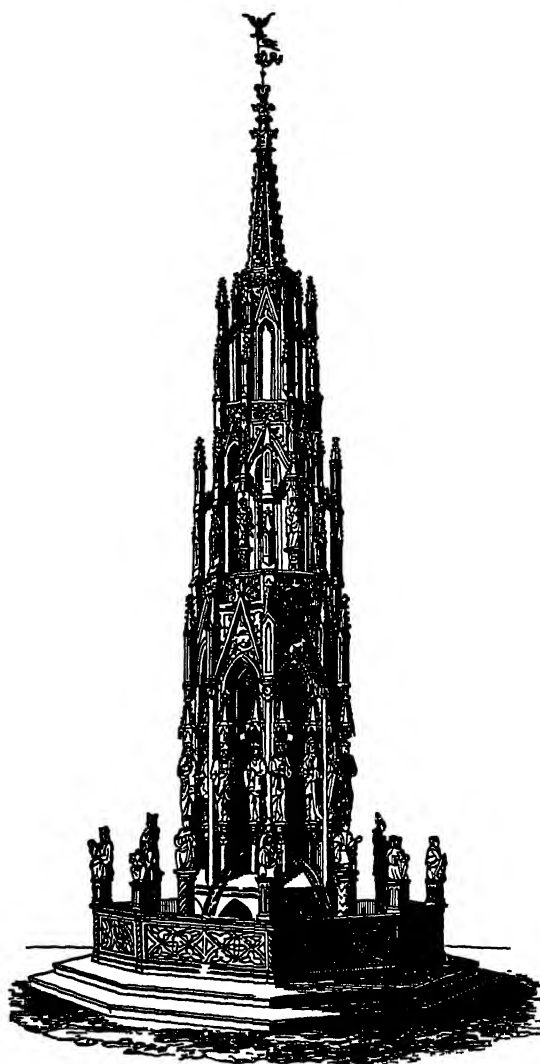
¹ Consult the Appendix, note 12.

a tower-like fragment of a town-hall, both built in the best age of architecture, and in some of the other Rhenish towns there are fragments of art more or less beautiful according to the age of their

details, but none that will bear comparison with the Belgian edifices of the same class.

Some of the castles in which the feudal aristocracy of the day resided are certainly fine and picturesque buildings, but they are seldom remarkable for architectural beauty either of design or detail. The same remarks apply to the domestic residences. Many of the old high-gabled houses in the streets are most elaborately ornamented, and produce picturesque combinations in themselves and with one another, but as works of art, few have any claims to notice, and neither in form nor detail are they worthy of admiration.

Among more miscellaneous monuments may be named



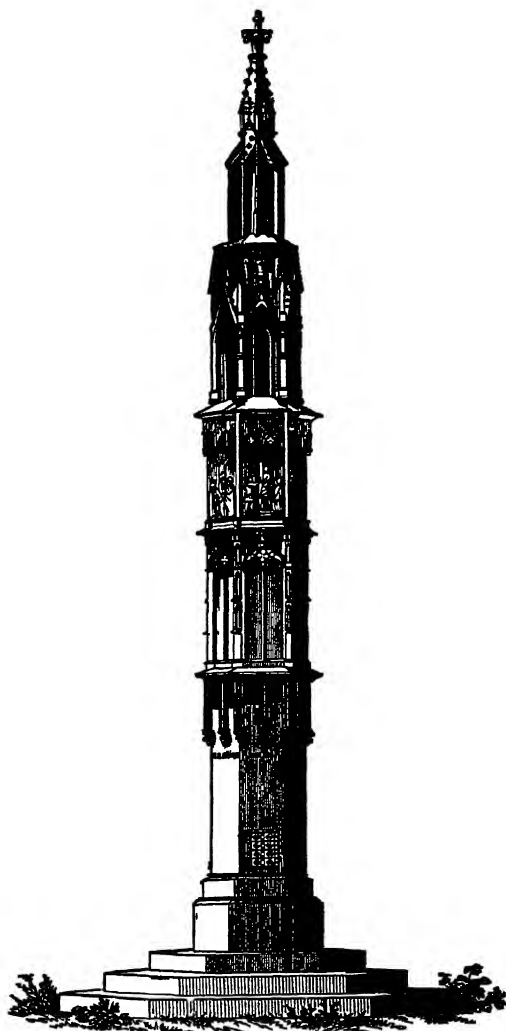
764. Schöne Brunnen at Nuremberg. (From Chapuy)

the weigh-tower at Andernach, with its immense crane, showing how any object may be made architectural if designed with taste. The Schöne Brunnen, or "Beautiful Fountain," in the market-place at Nuremberg, is one of the most unexceptionable pieces of German design in existence. It much resembles the contemporary crosses erected by our Edward I. to the memory of his beloved queen Eleanor, but

it is larger and taller, the sculpture better, and better disposed, and the whole design perhaps unrivalled among monuments of its class. The lightness of the upper part and the breadth of the basin at its base give an appearance of stability which contributes greatly to its effect.

Scarcely less elegant than this is the cross or "Todtenleuchter," *Lanterne des Morts*, in the cemetery of Kloster Neuberg, near Vienna. Its height is about 30 ft., the date engraved upon it is 1381. There is a small door at a height of about 5 ft. from the ground, and near the summit a chamber with six glazed windows, in which the light was exhibited.

In France, some ten or twelve of these lanterns have recently been brought to light and described. In Germany about as many, besides numberless little niches in which lamps were placed in churches, showing a prevalence in Christian countries of a custom which now only prevails among Mahomedans, of placing lights at night in the tombs of saints or of relatives, so long as their memory is preserved. Perhaps, however, the

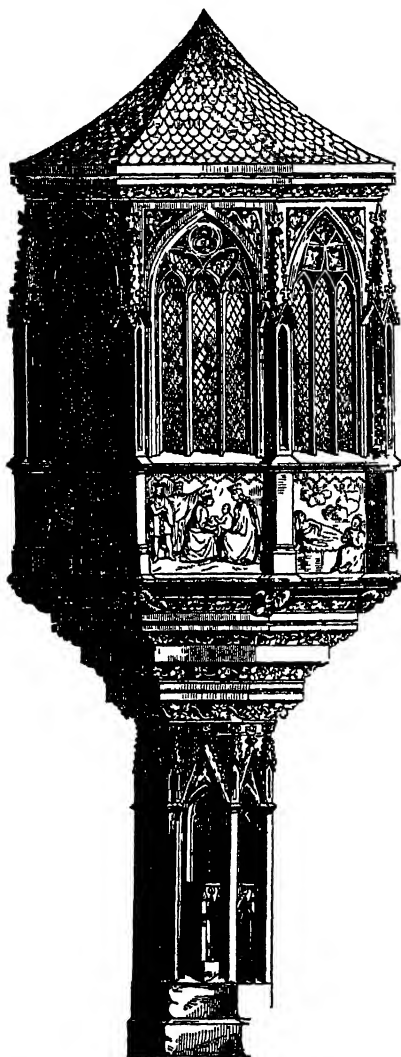


Todtenleuchter at Kloster Neuberg.

greatest point of interest attached to their investigation arises from the light these foreign examples may be expected to throw on the origin of the Round Towers in Ireland. Their form is not unlike this at Kloster Neuberg. Their destination seems the same, though the

dimensions of the Irish towers are greatly in excess of any similar monuments found on the continent of Europe.¹

In the town of Nuremberg are several houses presenting very elegant specimens of art in their details, though few that now at least



afford examples of complete designs worthy of attention. The two parsonages or residences attached to the churches of St. Sebald and

¹ Mr. Hodder Westropp was, I believe, the first to suggest this identity of the Round Towers with these "Fanals," or Lanternes des Mortes. It seems to be

the most plausible suggestion yet made, though far from meeting the whole difficulty.

St. Lawrence are among the best. The bay window (Woodcut No. 766) from the façade of the former is as pleasing a feature as is to be found of its class in any part of Germany.

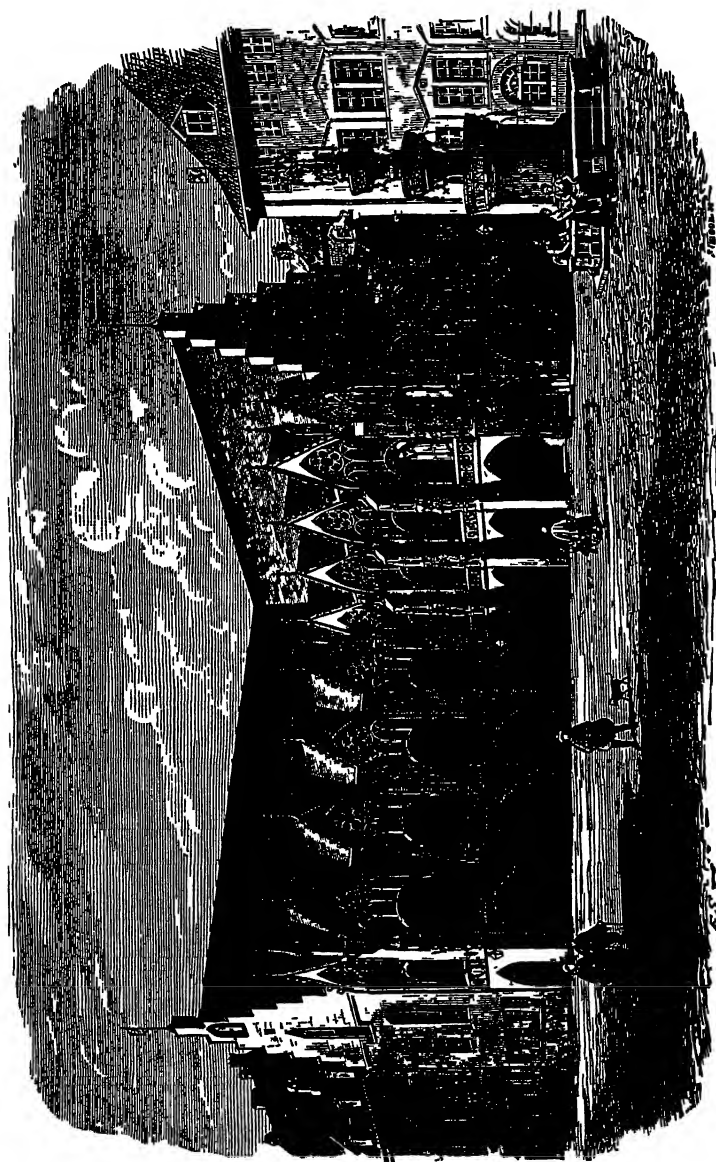
A more characteristic specimen, however, is to be seen at Bruck on the Mur, in Styria, where there still exists a large house, the front of which is ornamented with a verandah in several bays, one of which is represented in the annexed woodcut No. 767. It is in two storeys, the upper containing twice the number of openings of the lower. The whole design is singularly elegant, but betrays the lateness of the



767. Façade of House at Bruck-am-Mur

date (1505) in every detail; and, more than this, exhibits those peculiarly German features which are so characteristic of the later Gothic in that country. In the lower storey, for instance, the ogee arch instead of being filled up with a decorative piece of construction, is made circular by a plain piece of stone, which completes the construction but violates the decoration. Above this we have a balustrade in stone, imitating wood in a manner the Germans were so fond of, but which is certainly wrong in principle, as it is in taste; but notwithstanding these defects, we cannot but regret that more examples of the same class have not come down to our time.

The town-hall at Brunswick (Woodcut No. 768) is one of the most picturesque and characteristic of these buildings, and perhaps also the most artistic. It is difficult, however, to reconcile our feelings to the



Town-hall at Brunswick. (From Rosengarten.)

light arch supporting the tracery of the upper part of the upper gallery. If the four mullions had been brought down, they would not have impeded either light or air to an appreciable extent, and if

more space had been wanted for addressing people in the platz, the omission of the central mullion would have sufficed. Notwithstanding this, it is a picturesque and appropriate building, more so than any other known out of the Flandrian province. The fountain, too, on the right hand of the cut, is a pleasing specimen of its class, a little heavier at the base than quite comports with the style, though that is a fault quite on the right side

It is true that in all countries the specimens of domestic art are, from obvious causes, more liable to alteration and destruction than works of a more monumental class. Making every allowance for this. Germany still seems more deficient than its neighbouring countries in domestic architecture in the pointed style,¹ and one can hardly escape the conviction that this form was never thoroughly adopted by the people of this country, and that it therefore, never having had much hold on their feelings or taste, died out early, leaving only some wonderful specimens of masonic skill in the more monumental buildings, but very few evidences of true art or of sound knowledge of the true principles of architectural effect.

¹ This statement requires some modification See Appendix, note 12.

CHAPTER VII

NORTHERN GERMANY.

(BALTIC PROVINCES)

BRICK ARCHITECTURE

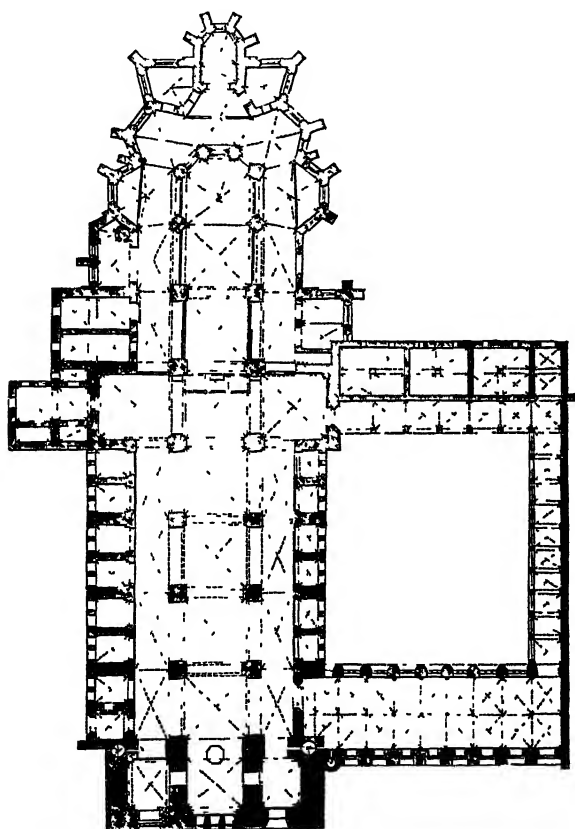
CONTENTS.

Churches at Lübeck—in Brandenburg—in Eimenland—Castle at Marienburg.

ALONG the whole of the southern shores of the Baltic extends a vast series of sandy plains, now composing the greater part of the kingdom of Prussia, with Hanover and Mecklenburg and the duchies of Brandenburg and Brunswick. This district was to a considerable extent cultivated during the Middle Ages, and contained several cities of great commercial and political importance, which still retain many of their ecclesiastical and civil buildings.

These plains are almost wholly destitute of any stone suitable for building purposes, and brick has alone been employed in the erection not only of their houses, but of their churches and most monumental buildings. This circumstance has induced such a variation in the character of the architecture as to justify the Baltic provinces being treated separately. The differences which are apparent may also be owing to some extent to ethnographic differences of race, though it is not easy to say how much may be owing to this cause. In early Christian times the whole province was inhabited by the Wends, a race of Slavonic stock; they have been superseded by the Teutonic races and their language has disappeared, but their blood must still remain, and a knowledge of this fact would at once account to an ethnologist for the absence of art. A Teutonic race based on a Celtic substratum, would have wrought beauty out of bricks, and the constructive difficulties would not have prevented the development of the art. But a Teutonic formation overlying a Slavonic base is about as unfortunate a combination for architectural development as can well be conceived. This, added to the deficiency of stone as a building material, will more than suffice to account for the special treatment we meet with on the southern shores of the Baltic.

It is true that in the hands of a refined and art-loving people like the inhabitants of the north of Italy, brick architecture may be made to possess a considerable amount of beauty. Burnt clay may be moulded into shapes as elegant, and as artistic as can be carved in stone; and the various colours which it is easy to impart to bricks may be used to form mosaics of the most beautiful patterns; but to carry out all this with success requires a genuine love of art, and an



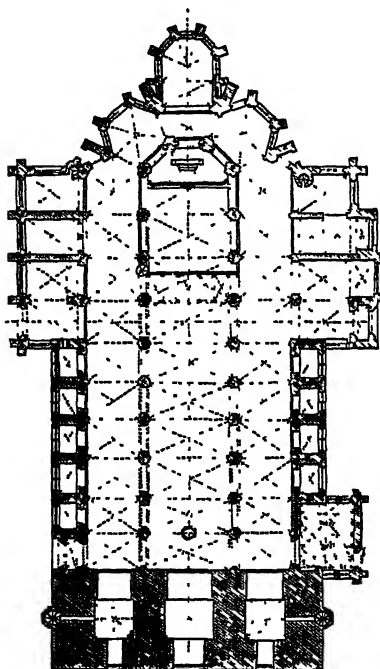
769. Plan of Cathedral, Lübeck (From Schlosser and Tischbein, 'Denkmäler Lübeck.')
Scale 100 ft. to 1 in

energy in the prosecution of it, which will not easily be satisfied. Without this the facilities of brick architecture are such that it can be executed by the commonest workman, and is best done in the least artistic forms. While this is the case, it requires a very strong feeling for art to induce anyone to bestow thought where it is not needed, and to interrupt construction to seek for forms of beauty. In brick architecture, the best walls are those with the fewest breaks and projections, so that if relief and shadow are to be obtained, they

must be added for their own sake, and more than this, walls may be built so thin that they must always appear weak as compared with stone walls, and depth of relief becomes almost impossible.

Another defect is, that a brick building almost inevitably suggests a plaster finishing internally, and every one knows how easy it is to repeat by casting the same ornaments over and over again, and to apply such ornaments anywhere and in any way without the least reference to construction or propriety.

All these temptations may of course be avoided. They were so at



770. Plan of Marien Kirche, Lubeck. Scale 100 ft. to 1 m.

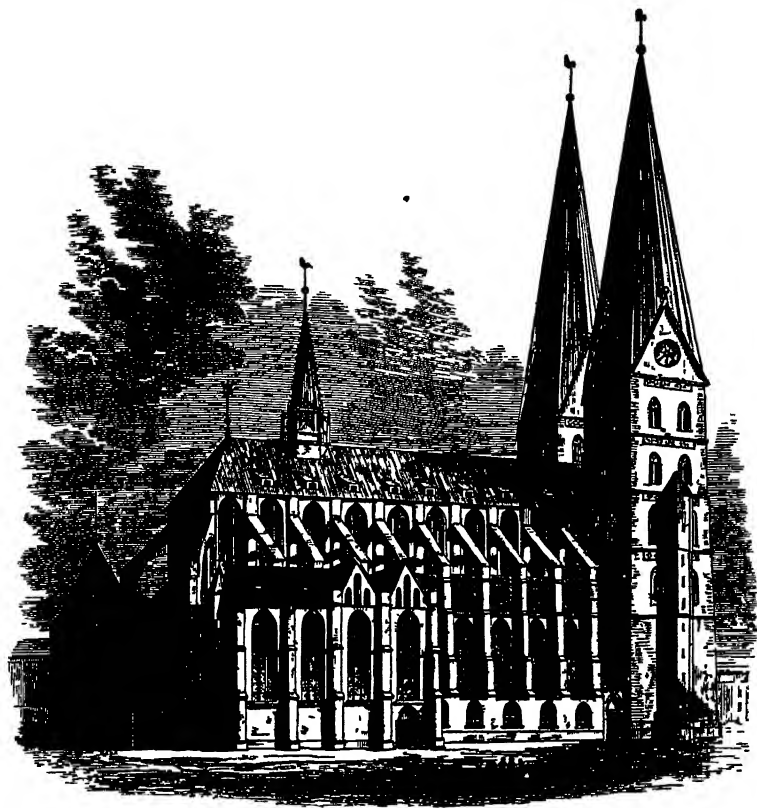
Granada by the Saracens, who loved art for its own sake. They were to a considerable extent avoided in the valley of the Po, though by a people far less essentially art-loving than the Moors. But it will easily be supposed that this taste and perception of beauty exerted less influence in the valley of the Elbe. There the public buildings were raised as simply as the necessities of construction would allow, and ornaments were applied only to the extent absolutely requisite to save them from absolute plainness. Thus the churches represent in size the wealth and population of the cities, and were built in the style of Gothic architecture which prevailed at the time of their

erection; but it is in vain to look in them for any of the beauties of the stone Gothic buildings of the same period, though the variety which they gave to their moulded brickwork, and the dexterity with which they treated it, imparted a character to it which is not without its interest.

The principal group of churches in the district is found at Lubeck, which was perhaps, in the Middle Ages, the wealthiest town on the shores of the Baltic. The largest of these is the Domkirche or Cathedral (Woodcut No. 769), a building 427 ft. long over all. The nave is 120 ft. wide externally. The vaults of the three aisles spring from the same height, the central one being 70 ft. high, those of the side-aisles a little less. This, with the wide spacing of the piers, gives a poor and bare look to the interior. The choir is better, showing a certain amount of variety about the chevet; but even this is leaner

than in any stone building, and displays all the poverty so characteristic of the style.

The Marienkirche is a more favourable specimen of its class, though not so large. It is of a somewhat earlier age, and is built more in accordance with the principles of Gothic design. The



771. View of Marien Kirche, Lubeck. (From Schlösser and Tischbein.)

central aisle is 130 ft. high ; the side-aisles only half as much. This allows space for a very splendid clerestory, which, if filled with stained glass, would redeem the flatness of the mouldings and the general poverty of the architecture of the interior.

The church of St. Catherine is smaller than either of these, though of about the same age as that last mentioned, and of as good a design. It possesses the somewhat curious peculiarity of having a double choir one above the other like that of St. Gereon at Cologne (Woodcut No. 740), but more complete and extensive than in that example. The whole of the lower choir is vaulted over, and a second, at a height of 20 ft., forms an upper choir over its whole extent.

There are several smaller churches in Lübeck, none of which show any peculiarities not found in the larger. The same faults which characterise the interior of these churches are also found in the exterior. The Marienkirche (Woodcut No. 771) is the best of them in this respect, but though its outline is good, it is far from being a pleasing specimen of architecture. Its two western towers are of the form typical in Lubeck. They are just 400 English ft. in height, and with these dimensions ought to be imposing objects, but they certainly are not so, being in fact as bad specimens as could be of Gothic towers.

As usual in Germany, there is no door at the west end of any of these churches, and the principal entrances are in all cases lateral, one of those attached to the cathedral is an elaborate and beautiful piece of stone architecture, but it is the only one apparently that is at all remarkable.

Some of the rood-screens are covered with carving, and the tabernacles, or receptacles for the holy elements, are, as in most parts of Germany, elaborately ornamented. They are nearly of the same age and of the same style as those at Nuremberg, one of which is represented in Woodcut No. 762.



772. Tower of the Rüchlinger Strasse, Hanover.

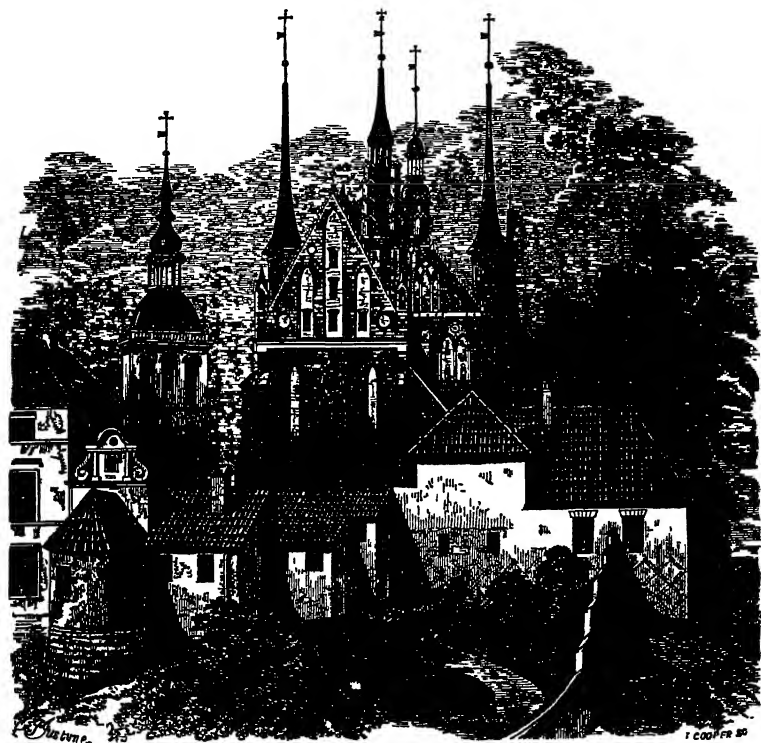
Dantzic possesses several large churches very similar, both in style and arrangement, to those of Lubeck. The principal of these is the cathedral, or Marienkirche, commenced in its present form in 1343, and completed in the year 1502. It is 316 ft long and 105 in width, with a transept extending to 206 ft. The whole area of the church is about 42,000 ft., so that though not among the largest, it may still be considered as a first-class church; and, being of a good age, it is as effective in design as any of the brick churches of the province. It has one tower at the west end 230 ft. in height.

The church of St Catherine is in part older than the cathedral, having been founded in 1185, though it was to a great extent rebuilt at a subsequent period. Its dimensions as it now stands are 210 ft. long, and 120 ft. wide over all. Neither it nor any of the other churches of the town seem to have any remarkable feature of design or construction worthy of being alluded to.

Other churches of less importance but of similar style are found in the Marienkirche and St. Nicolas at Stralsund; in the Marienkirche at Stargard, which has its west front richly ornamented with

moulded-brick tracery ; in the churches of Wismar, in the Marienkirche at Prenzlau, where the west gable is the most elaborate in North Germany, and in other churches in Neu-Brandenburg, Anclam, and other towns

The form of church tower found in Luneberg, and indeed generally in the district, is a modification of that at Paderborn (Woodcut No. 706), and is well exemplified by that in the Kœblinger Strasse at Hanover (Woodcut No 772) It is an honest and purpose-like piece of architecture, but without much pretension to beauty of design.

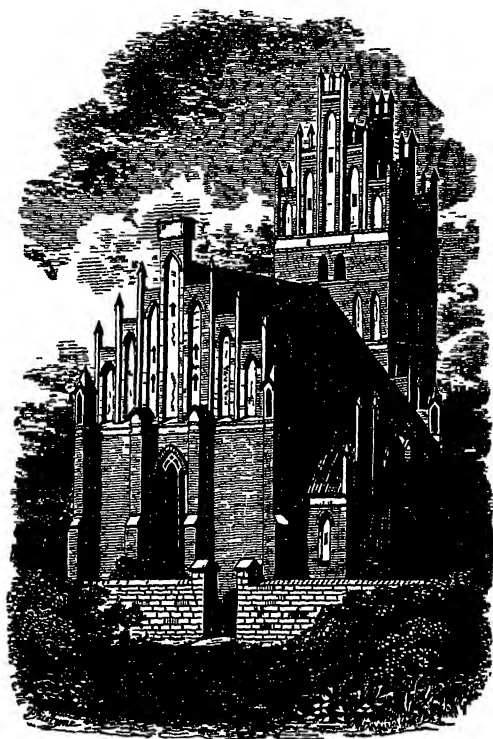


773 Church at Frauenburg. (From Quast, 'Denkmäler der Baukunst in Ermeland'.)

Further east in Ermeland, as Eastern Prussia used to be called, there are many brick buildings, which from their picturesqueness and the appropriateness of their form half disarm the critic. Among these, for instance, such a church as that of Frauenburg (Woodcut No. 773), with its light graceful spires and its brick tracery in its gables, is an object, if not of grandeur, at least of considerable beauty in itself, and in this instance is grouped with so many others as to form a more picturesque combination than is usually to be met with on the shores of the Baltic. The church itself is 300 ft. long by 80 in width, and has three aisles in the nave, of equal height but unequal width. Its

worst defect is in the plainness and bulk of the octagonal piers which support the vault.

The next illustration, of the church at Santoppen (Woodcut No. 774) is of a type infinitely more common in Ermeland. In Quast's work¹ are some dozen churches varying only slightly from this in design, but in many the western tower is more like a many-storeyed warehouse than a building designed either for ornament or any church-



774 View of Church at Santoppen. (From Quast)

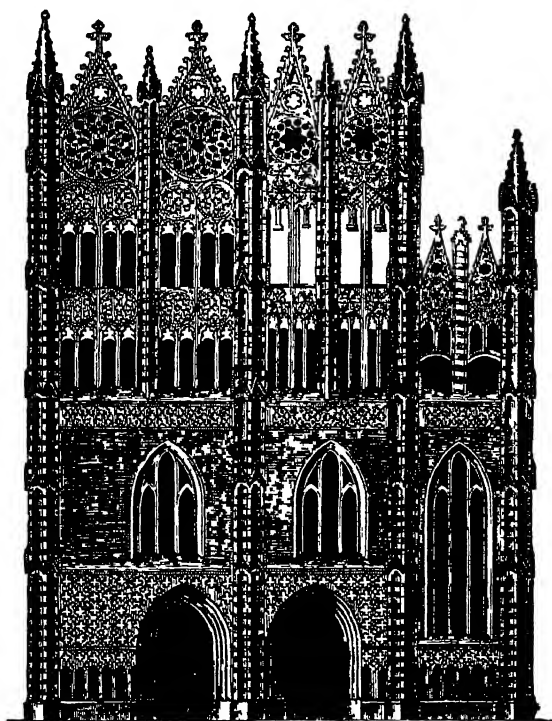
like use. They all, however, possess some character and charm from their novelty, being very unlike anything found elsewhere.

The Marienkirche at Brandenburg (Woodcut No. 775) exhibits this style carried to an excess which renders it almost bizarre. The lower part is unobjectionable, the ornament around the doors and under the windows being appropriate and well placed; but the windows themselves are too plain even in this style, and above this the ornament is neither constructive nor elegant. The building might be either a dwelling or a civil building, or anything else, as well as a church, and

¹ 'Denkmäler der Baukunst in Ermeland.' Berlin,

it is difficult to find on what principle the design is varied or arranged. In true Art the motive is apparent at a glance, and should always be so.

At Hamburg, fires, and the improvements consequent on modern activity and prosperity, have nearly obliterated all the more important buildings which at one time adorned that city.

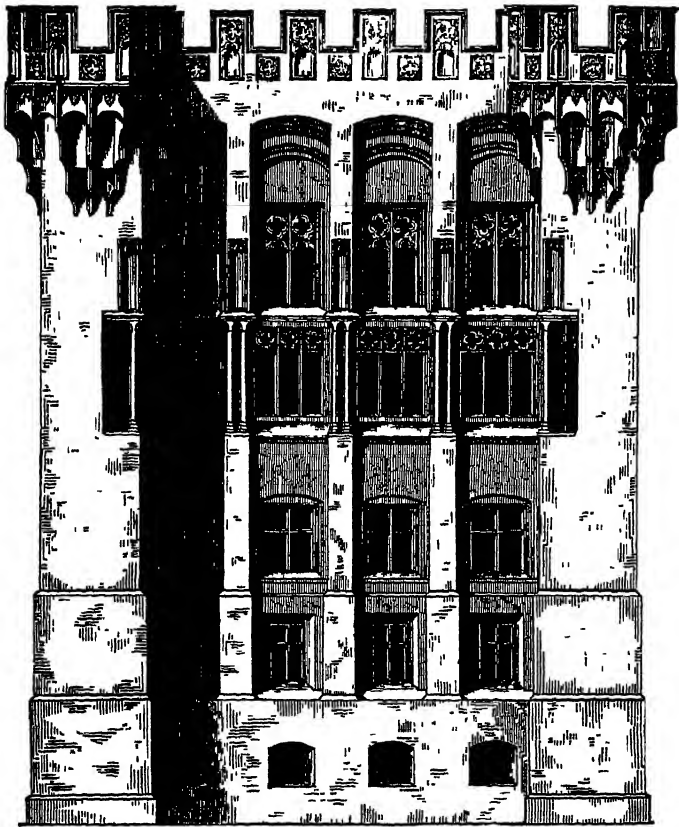


775. Façade of Marien Kirche, Brandenburg (From Rosengarten.)

At Königsberg, at the opposite extremity of the district, there seems to be little that is remarkable, except a cathedral, possessing an enormous façade of brickwork, adorned with blank arches, but without the smallest pretensions to beauty, either internally or externally.

CIVIL BUILDINGS.

The most remarkable among the civil buildings of the province is the castle at Marienburg, which was for nearly a century and a half the residence of the masters of the once powerful knights of the Teutonic order. The Alte Schloss was built in 1276, the middle castle in 1309, so that it belongs to the best age of Gothic art;



776. Facade of the Knight-hall in the Castle of Marienburg (From Rosengarten)

and, being half palace, half castle, ought to possess both dignity and grandeur. It betrays, however, in every part the faults of brick architecture in this province, and though curious, is certainly not beautiful. All the windows are square-headed, though filled with tracery, and the vaultings of the principal apartments are without grace in themselves, and do not fit the lines of the openings; even

the boldly projecting machicolations, which in stone architecture give generally such dignity to castellated buildings, here fail in producing that effect, from the tenuity of the parts and the weakness of their apparent supports

The town-hall at Lübeck is imposing from its size, and singular from the attempt to gain height and grandeur by carrying up the main wall of the building high above the roof, and where no utilitarian purpose can be suggested for it. Indeed there are few towns in the province that do not possess some large civic buildings, but in all instances these are less artistic than the churches themselves, and, though imposing from their mass and interesting from their age, they are hardly worthy of notice as examples of architectural art.

The town of Lüneburg retains not only its public buildings, but its street architecture, nearly as left from the Middle Ages, and its quaint gables and strange towers and spires give it a character that is picturesque and interesting, but cannot be said to be beautiful.

The town-halls of Tangermünde, Rostock, and Stralsund, have façades of similar style to that of Lübeck. In all these cases as a rule these façades are mere decorative screens, which, like the churches in Italy, rise high above the roofs of the main building. The Rathhaus at Stralsund is surmounted by six lofty gables with large circular openings in them open to the sky, so that there is no attempt at concealment, the fact probably being that, proud of their dexterity in the moulding of the brickwork, and repetition being easy and inexpensive, they were not content with the small elevation which the height of their buildings gave them. In this respect the Rathhaus at Hanover is an exception, and here the decorative features are confined to the gables of the principal hall and the lofty dormer windows—to deep friezes or bands of boldly-modelled terra-cotta work—enriched plate tracery in the windows of the great hall, and (in contrast to the simple brickwork of the two lower storeys) to elaborate detail in their gables and dormer windows, which are divided up by vertical buttresses placed anglewise, composed of five or six semicircular shafts grouped together, and in alternate bands of yellow and green glazed bricks. The effect of these bright colours must have been somewhat startling when the buildings were new, but, in the unrestored portions, their brilliance has been toned down by time, and their effect is now harmonious and agreeable.

The most interesting series of structures in the Baltic provinces are the gateways of their towns, which are not only extremely picturesque objects both in outline and colour, but display great fertility of invention and variety in form. Among the more important may be noticed the Holstein Thor and Burghor of Lübeck; the two gates at Stendal, and the four gates of Neu-Brandenburg.

As the examples just enumerated are types of the best building

which exist in the province, they are sufficient to characterise the style, and at the same time to show how much can be done even with the restriction imposed by the absence of stone. As many of the towns were populous and wealthy during the Middle Ages, they of course had large and commodious churches, and although they are wanting in those high qualities which we find in the French cathedrals, their size and the excellence of their vaulting render them well worthy of study.

In addition to the buildings above referred to, in many of their towns, such as Anclam, Lubeck, Dantzic, and others, will be found fine examples of the pointed style of Hanseatic architecture

BOOK VI.



CHAPTER I.

SCANDINAVIA.

CONTENTS

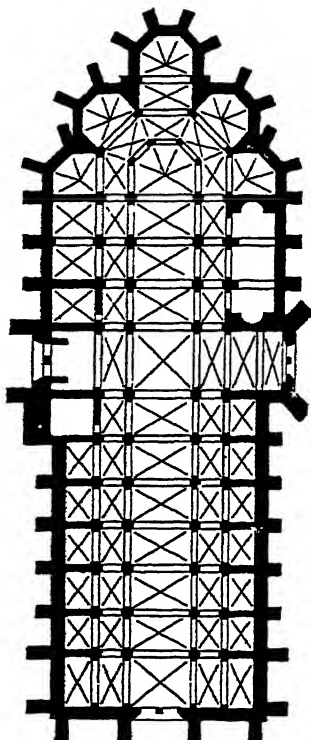
Sweden — Norway — Denmark — Gothland — Round Churches — Wooden Churches.

No one who has listened to all that was said and written in Germany before the late war about "*Schleswig-Holstein stammverwandt*," can very well doubt that when he passes the Eyder going northward, he will enter on a new architectural province. He must, however, be singularly deficient in ethnographical knowledge if he expects to find anything either original or beautiful in a country inhabited by races of such purely Aryan stock. If there is any Finnish or Lap blood in the veins of the Swedes or Danes it must have dried up very early, for no trace of its effect can be detected in any of their architectural utterances; unless, indeed, we should ascribe to it that peculiar fondness for circular forms which is so characteristic of their early churches, and which may have been derived from the circular mounds and stone circles which were in use in Sweden till the end of the 10th century. The country in fact was only converted to Christianity in the reign of Olof Skot-Konung—1001 to 1026; and then, and for a long time afterwards, was too poor and too thinly inhabited to require any architectural buildings, and when these came to be erected the dominant race was one that never showed any real sympathy for the art in any part of the world.

SWEDEN.

The largest and most important monument in the province is the Cathedral of Upsala, (Woodcut No. 777) measuring 370 ft. by 330 ft., though it can hardly be quoted as an example of Scandinavian art;

for when the Swedes, in the end of the 13th century (1287), determined on the erection of a cathedral worthy of their country, they employed a Frenchman of the name of Étienne Bonnuell, to furnish them with a design, and to superintend its erection. This he did till his death, though how far the work was advanced at that time there is now no means of knowing. The church is only 330 ft. in extreme length by 145 in width, with two western towers, and the principal portal between them. The whole is of brick, except the doorways, the gable of north transept, the interior columns, and some smaller ornamental details. The building was in progress during 200 years,¹ and after Bonnuell's death the French principles of detail were departed from; and, in addition to this, the upper parts of western towers were rebuilt during the last century, and other disfigurements have taken place, so that the building would hardly be deemed worthy of a visit farther south, and is only remarkable here from the meanness of its rivals.



777. Plan of Uppsala Cathedral.

The church at Linköping (1260–1500) ranks next in importance to that of Upsala. It has, however no western towers or other ornaments externally, but otherwise it far surpasses the latter in interest and the beauty of its details.

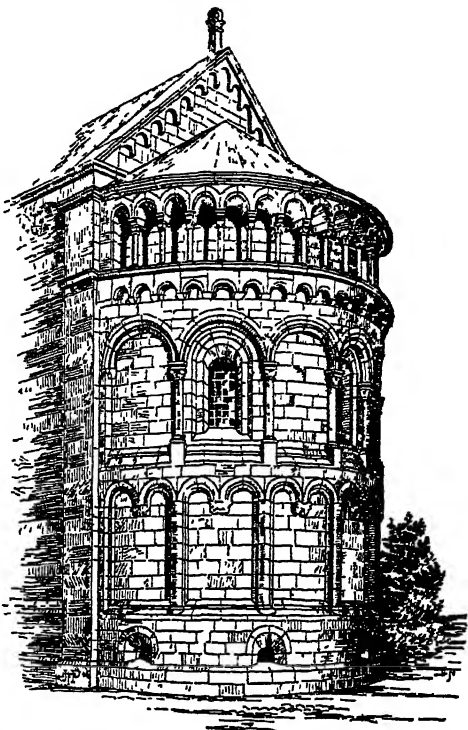
It is said to have been founded in 1150, and the oldest portions are the transept and crossing of the choir, where the arches are semi-circular resting on piers with angle shafts and half-cylindrical columns. Early in the 12th century the nave was continued, the

¹ Mr. Tavenor Perry, in his paper on the 'Medieval Architecture in Sweden' (R.I.B.A. Transactions, vol. VII. new series, 1891), points out that the architecture of the choir is of much earlier date than Étienne de Bonnuell's advent, that the foundation was laid in 1258, and already in 1278 was well advanced. He takes objection also to the assumed French origin of the plan, which is more like German work. The plan bears some resemblance to the chevet

of Westminster Abbey, the lady-chapel of which, pulled down by Henry VII, was commenced in 1220 by Henry III. There are only five chapels, as in Westminster Abbey, and they are of greater width than any French examples. Étienne's work was probably confined to the three great portals, though Mr Perry believes that he did much to improve the design, and probably helped to "found a new school of sculptors."—Ed,

work, according to Mr. Perry, having spread over a long period, as at the west end of the nave the work is as late or later than any of the work at Upsala. The wall arcading in the north and south aisles is bold in design, nobly moulded and carved. The choir, with its three eastern chapels, was commenced late in the 13th or early in the 14th century, but not completed till 1499.

The cathedral at Lund is both older and better than either of these. It was commenced apparently about the year 1072, and consecrated in 1145 by Archbishop Eskil, who had presided over its construction, and to whom may be attributed its purely German character, as he had been brought up in Hildesheim. The church has been magnificently restored, but unfortunately at too early a date to have preserved much of its historical features.



776 Apse of Lund Cathedral. From a drawing by Mr. Tavenor Perry.

The church of St Nicholas at Orebro is chiefly interesting on account of its strong resemblance to English work. The fine south porch bears a strong likeness to the now destroyed porch of St. Mary Overie, published in Mr. Dollman's work,¹ and is not dissimilar to the porch of the north transept of Westminster Abbey.

There are other churches in Sweden, at Westerås, Stregnas, and Abo in Finland, all large²—viz, about 300 ft. east and west by 100 to 120 in width,—and founded in the 12th and 13th centuries; but, like the nave at Lund, they have been altered and improved so frequently during the last 600 years, that very little remains of the original

¹ 'The Priory of St Mary Overie, Southwark.' F T. Dollman, London, 1881.

² These churches are nearly all brick: those of Lund and Linköping are in stone.

design: whatever that may have been, in their present state they are hardly worthy of mention.

Perhaps the most pleasing objects in Sweden are the country churches, with their tall wooden spires and detached belfries. If these do not possess much architectural beauty, they at all events are real purposelike erections, expressing what they are intended for in the simplest manner, and with their accompaniments always making up a pleasing group.



779.

Old Country Church and Belfry (From Marryat, 'One Year in Sweden.')

NORWAY.

The Norwegians are more fortunate than either the Danes or Swedes in possessing at Trondhjem a national cathedral of great beauty and interest, even in its present ruined state

Its history is easily made out from a comparison of local traditions with the style of the building itself. Between the years 1016 and 1030 St. Olaf built a church on the spot where now stands St. Clement's church, the detached building on the north, shown in plan at A (Woodcut No. 780). He was buried a little to the south of his own church, where the high altar of the cathedral is now situated. Between the years 1036 and 1047, Magnus the Good raised a small wooden chapel over St. Olaf's grave; and soon afterwards Harald Haardraade built a stone church, dedicated to Our Lady, immediately to the westward of this, at B. This group of three churches stood in this state during the troubled period that ensued. With the return of peace in 1160, Archbishop Eysteen commenced the great transept C C to the westward of the Lady Chapel, and probably completed it about the year 1183. At that time either he or his successor rebuilt the church of St. Clement as we now find it. During the next sixty or



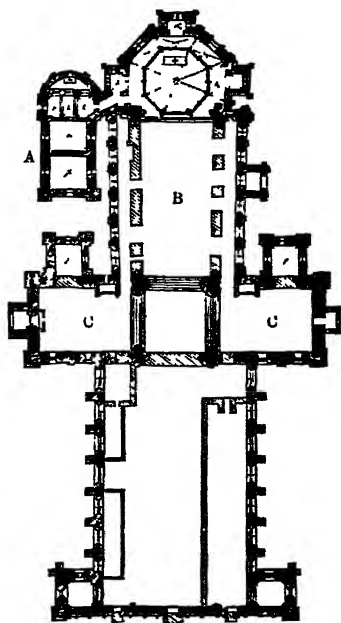
CATHEDRAL OF TRONDHJEN, NORWAY

seventy years the whole of the eastern part of the cathedral was rebuilt, the tomb-house or shrine being joined on to the apse of the Lady Church, as was explained in speaking of the origin of the French chevet (p. 73). In 1248 Archbishop Sigurd commenced the nave, but whether it was ever completed or not is by no means certain. In 1328 the church was damaged by fire, and it must have been after this accident that the internal range of columns in the circular part was rebuilt in the style of our earlier Edwards.

Thus completed, the church was one of the largest in Scandinavia, being 350 ft. long internally, the choir 64, and the nave 84 ft. wide. But its great merit lies more in its details than in its dimensions. Nothing can exceed the richness with which the billet-moulding is used in the great transept. Its employment here is so vigorous and so artistic, that it might almost be suspected that this was its native place, and that it was derived from some wooden architecture usual in this country before being translated into stone.

The greatest glory of the place is the tomb-house at the east end. Externally this presents a bold style of architecture resembling the early English¹ Internally it is a dome 30 ft. in diameter, supported on a range of columns disposed octagonally, and all the details correspond with those of the best period of decorated architecture.

As will be observed from the plan (Woodcut No. 780), the architect had considerable difficulty with all these rebuildings to bring the old and new parts to fit well together, and in consequence the walls are seldom straight or parallel with one another, and, what is most unusual, the choir expands towards the east. This is not, however, carried to such an extent as to be a blemish, and with a double range of columns down the centre would hardly be perceived, or if perceived, the effect would be rather pleasing than otherwise.



780 Plan of Cathedral of Trondhjem.
Scale 100 ft. to 1 in.

¹ Both in design and purpose this circular part of Trondhjem Cathedral is an exact counterpart of Becket's Crown at Canterbury. That was erected as a baptistery and burial-place for the archbishops, and seems to have been afterwards incorporated in the cathedral, *more Francorum*.

Had the western front been completed, it would have been one of the most beautiful anywhere to be found, not only from its extent (120 ft.), but also from the richness and beauty of its details, belonging to the very best period of art—about the year 1300. In design and



781.

View of Cathedral of Trondhjem ¹

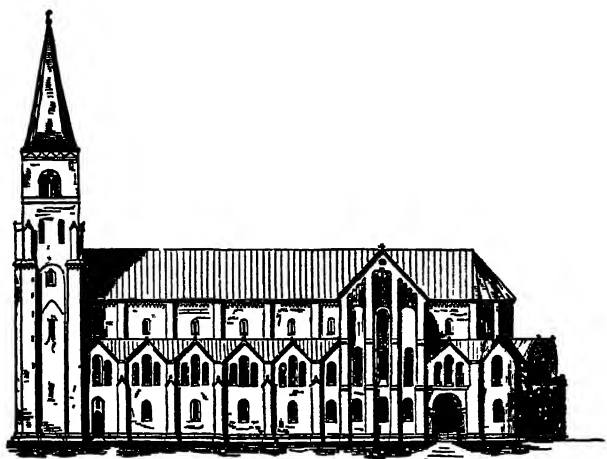
detail it resembles very much the beautiful façade of Wells Cathedral. Like the rest of the cathedral, it is now in a very ruinous state, and, as will be seen by the view (Woodcut No. 781), the whole is so deformed externally by modern additions, that its original effect can only be judged of by a careful examination of its details.

DENMARK.

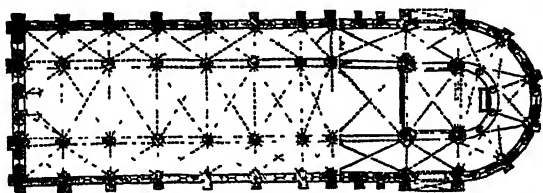
The most interesting church in Denmark is that at Roeskilde, in Jutland, which is now the burial-place of the kings, and the principal cathedral of the country. The original church was founded in the year 1081, and was then apparently circular, and of the same dimensions as the east end of the present edifice. This latter was commenced after the middle of the 12th century, and does not seem to have been completed as we now see it till towards the end of the 13th. The east end is probably one-half of the old round church rebuilt, the required enlargement of space having been obtained by a considerable extension of length towards the west.

¹ The octagonal dome on the east end has been lately restored, but not improved.—Ed.

Its general dimensions, as shown in the plan (Woodcut No. 783),



782. Elevation of Domkirche Roeskilde. (From Steen Friis) Scale 100 ft. to 1 in



783. Plan of Church at Roeskilde (From Steen Friis.) Scale 100 ft. to 1 in.

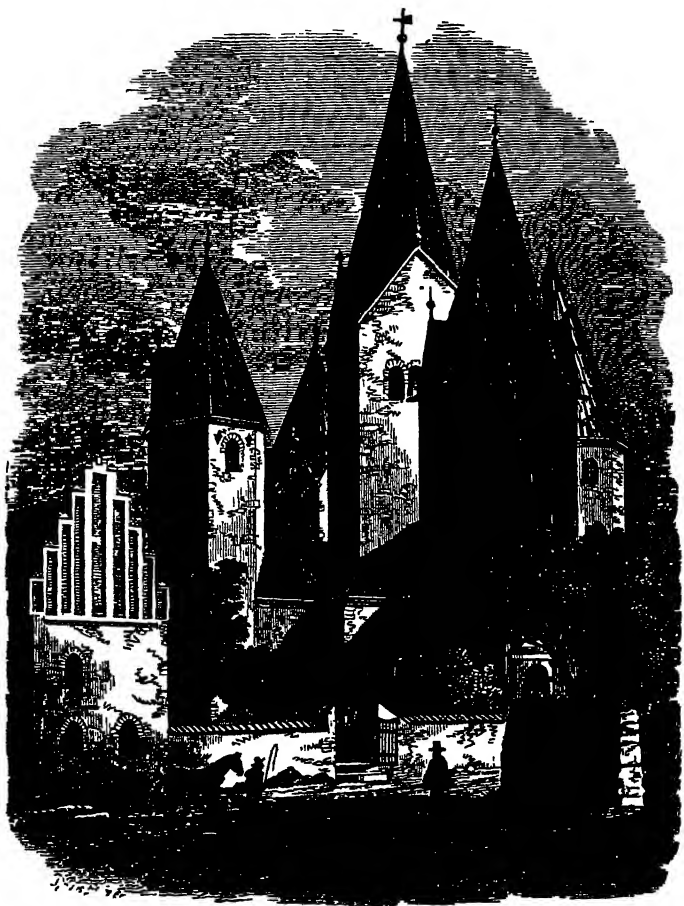


784 Frue Kirke, Aarhuus. (From Marryat's "Jutland and the Danish Isles.")

are 265 ft. long by 75 in breadth internally. The whole area is only

about 24,000 ft., and consequently not more than half that of most English cathedrals.

From the elevation (Woodcut No. 782), it appears simple and elegant in its design, and contains the germ of much that is found afterwards in the churches of the neighbourhood, especially in the range of small gables along the side of the aisles, marking externally



785. Church of Kallundborg (From Marryat's 'Jutland and the Danish Isles'.)

each bay of the nave.¹ This arrangement is almost universal in the North of Germany, but seldom, if ever, found in France or England.

At Aarhus is a somewhat similar church, commenced about the year 1200, but rather larger, being 300 ft. in length by 80 in breadth. In its present state, however, it is only a very ugly and uninteresting

¹ The plan and elevation are taken from a description of the church by Steen Fris, published at Copenhagen, 1851. In both cuts the modern additions are omitted.

brick building in an indifferent state of repair.¹ The Frue Kirke, in the same town, is a far more pleasing specimen of art, and is a fine example of the style prevalent on the southern shores of the Baltic, from which province the design is evidently borrowed. Like every specimen of honest art, it is pleasing; but neither its form nor arrangement will bear any very close analysis.

The cathedral at Ribe, on the northern limits of Schleswig, with an apse something like that of Lund Cathedral, but of slightly more modern date, and wanting the gallery under the roof, and the Cathedral of Viborg, rebuilt between 1130 and 1170, and said to be one of the finest specimens of Continental Norman, also deserve mention.

Sometimes, we get a touch of originality even in this province, as in the church of Kallundborg (Woodcut No. 785), built in the form of a cross, with one square tower in the centre, and four octagonal towers, one at the end of each of the arms of the cross transept. Was it a caprice? or is it borrowed from any other form? Except in the Kremlin at Moscow, I do not know where to look for any such type, and even then the likeness is very remote. A larger octagon in the centre, with four square towers around it, must have been a happier arrangement, and, if properly subordinated, have formed a picturesque group. In this example the church itself is lost sight of, and the towers are not remarkable for beauty.

GOTHLAND.

The island of Gothland, though politically attached to Sweden, deserves to be treated as a little province of its own in an architectural view, inasmuch as it possesses a group of churches within its limits as interesting as any in the North of Europe; and peculiar, if not exceptional in design. Their existence is owing to the fact, that during the 11th and 12th centuries a great portion of the Eastern trade which had previously been carried on through Egypt or Constantinople was diverted to a northern line of communication, owing principally to the disturbed state of the East, which preceded and in fact gave rise to the Crusades. At this time a very considerable trade passed through Russia, and centred in Novogorod. From that place it passed down the Baltic to Gothland, which was chosen apparently for the security of its island position, and its capital, Wisby, one of the Hanse towns, became the great emporium of the West. After two centuries of prosperity, it was gradually superseded by the rise of other Hanseatic towns on the mainland, and a final blow was struck by Valdemar of Denmark, who took the town by storm in

¹ It has lately been well restored (1881).—Ed.

1361. Since then it has gradually become depopulated. The consequence has been that, no additional accommodation being required, the old churches have remained unaltered, many also have entirely disappeared, the materials having been used for other buildings and for converting into lime, so that in Wisby, the capital, only eleven remain of the eighteen or twenty churches she formerly possessed, and the only reminiscence of the locality of those destroyed consists in the streets and houses to which they have bequeathed their names.



786. Helge-Anders Church. (From a drawing by Mr. Axel Haug.)

The cathedral church of St. Mary was originally founded about the year 1100, burnt down in 1175, and rebuilt as we now find it about 1225. Like all the others it is small, being only 171 ft. 6 in. long by 99 ft. in width. It is the only church now used for divine service, the remainder being in ruins.

One of the most remarkable churches in Wisby is that of the Helge-Anders (church of the Holy Ghost), founded originally, it is said,

in 1046.¹ This, however, must refer to an earlier church, for the actual building² belongs to the transitional period both in its construction and in its details; it cannot, therefore, according to Mr. Haig, "have been erected earlier than at the beginning of the 13th century," and this may apply only to the chancel, the north wall of which seems to indicate an earlier date than the rest of the building—in all probability about 1250 would be the date of the church, generally



787. Interior of Church at Gothem. (From R. I. B. A. Transactions.)

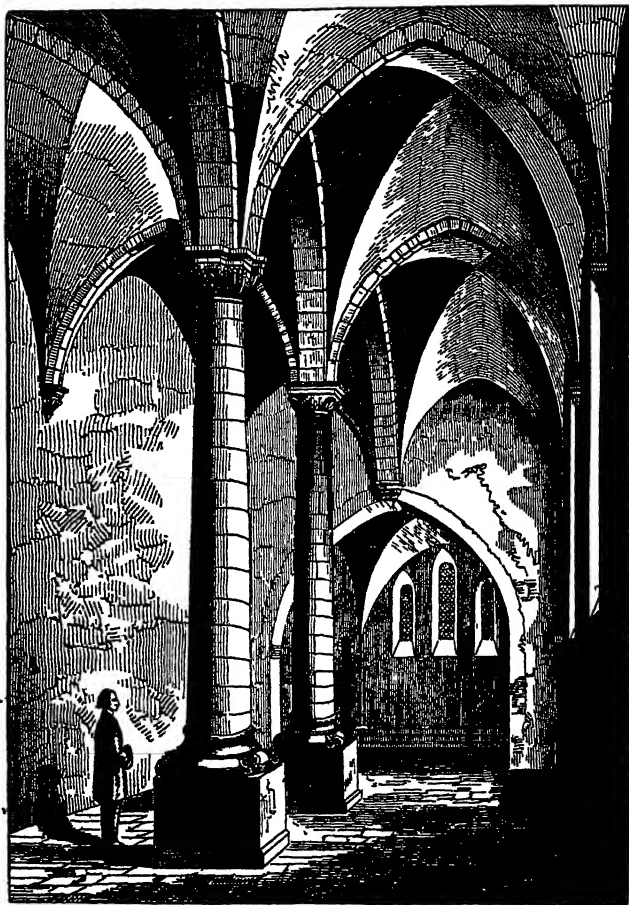
speaking. The nave is an octagon of about 48 by 45 ft., somewhat irregular in its setting out and owing to want of space was built in two storeys, both of which are vaulted, the vaults being carried by four octagonal piers on ground floor and circular piers on second floor

¹ Gothland was Christianized by St. Olaf in 1028 the first churches, in wood, were soon burnt down, and the earliest stone examples now known are these of

Akebäck and Åla, which date from 1119.

² An elevation and section of the church by Mr. Haig is given in the R. I. B. A. Transactions, new series, vol. ii.

in the vault of the lower storey there is an opening in the centre about 7 ft. in diameter, which is said to have been formerly filled with an iron grating. The chancel (which is square externally and internally, having a small apse and two small vestries) opens into both lower and upper church by semicircular arches, and thus serves for both.

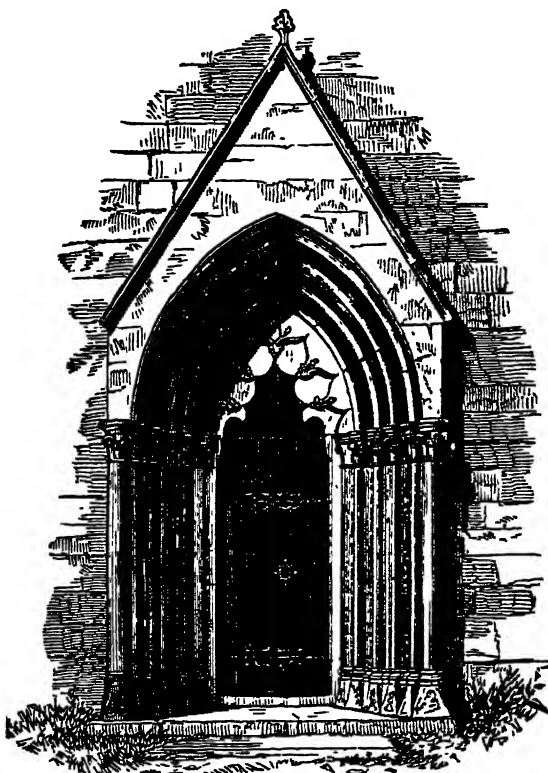


788. Fölo Church, Gothland. (From Marryat's 'One Year in Sweden'.)

There was a third storey in the roof with stone gables on east face of the octagon; the roof is gone, but it may have terminated as that of the church of Kallundborg (Woodcut No. 785).

The church most like this in Germany is perhaps that at Schwartz Rheindorf (Woodcuts Nos. 718 and 719). It also resembles the chapel at Landsberg (Woodcut No. 720); but the most extended and indeed the typical example of a church of this class is St. Gereon's at Cologne (Woodcuts Nos. 740 and 741).

The churches of St. Lars and St. Drotheus, the so-called sister churches (probably from the resemblance of their plans), belong probably to the 11th century, but the pointed work in them is evidently of a later period. About the same date, 1097, is given for St. Nicholas, the church of a Dominican convent, but the whole has been remodelled at a later period, the main arches of the nave rebuilt,



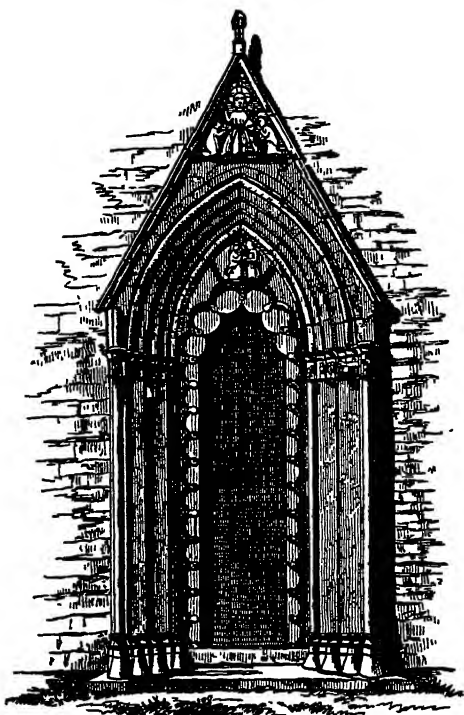
789 Portal, Sandeo Church, Gothland. (From Marryat's 'One Year in Sweden'.)

and probably the whole church revaulted in the 13th century, at which period also the octagonal chancel was built.

The church of St. Katharine, belonging to the Franciscans or Grey Friars, was also wholly remodelled in the pointed period. It is said to have been founded in 1225. The choir, with its polygonal apse, was built in 1376-1391, and the piers and arches of the nave were rebuilt about the year 1400, the church being reconsecrated in 1412.

One peculiarity found in some of the churches of Gothland is the bisection of the nave by two or more arcades carried on columns and placed in the centre of the church, the easternmost arch being supported by a corbel built in above the keystone of the chancel

arch.¹ One of these churches, St Goran, or St. George, outside the walls of Wisby, consists of a nave of three bays divided by a central arcade (the western pier being square, the eastern circular), and a chancel of two square bays. A second example is found at Gothem, about twenty miles east of Wisby. Here the eastern portion of the nave, only consisting of two bays, is bisected, the western portion was probably intended to carry a tower, the walls being much thicker than the rest of the church. The arches thrown across the western part of



790. Portal, Høste Church, Gothland. (From Marryat's 'One Year in Sweden'.)

the nave under the tower are semicircular and carried on twin columns, the column in the centre of the nave is circular, much loftier than the twin columns, and carries pointed arches (Woodcut No. 787). The great height of these arches allows of their being carried on a corbel above the chancel arch instead of its forming, as at Föld, the keystone of the chancel arch. In this latter church the nave is also divided by three arches carried on circular columns which diminish in diameter as they rise, but not to the extent as shown in Marryat's work² (Woodcut No. 788). A fourth example is given in Major Heales' work,³ in which the arched ribs of the vault

are carried on a clustered capital carved with foliage of early English type, the pier or column being circular.

The portals of the churches at Sandeo (Woodcut No. 789) and Høste (Woodcut No. 790), dating probably from the middle of the 14th century, and two other examples at Stångå and Garde (about 30 miles from Wisby), are interesting on account of the singular blind cusplings

¹ Two examples are pointed out by Mr. Carpenter (R.I.B.A. Transactions, new series, vol. ii. 1886) as existing in England, viz: Hannington Church, Northamptonshire, and Caythorpe Church, Lincolnshire.

² 'One Year in Sweden,' Murray, 1862.

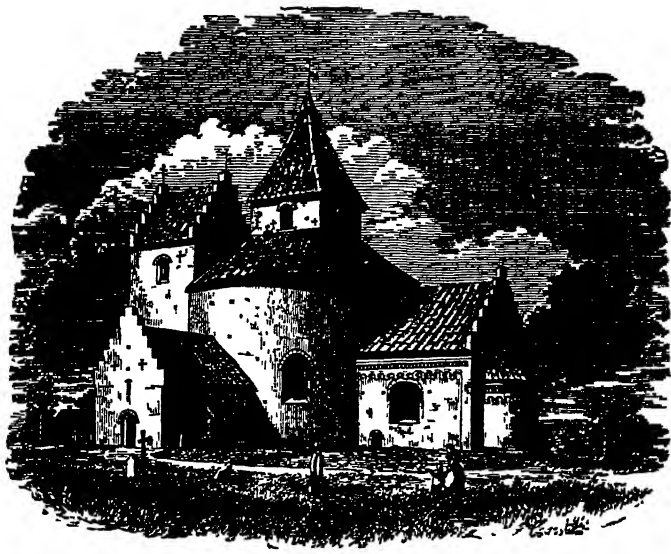
³ 'The Ecclesiology of Gothland and the Churches of Bornholm,' by Major Alfred Heales, F.S.A., 1889.

round the inner order, a treatment which seems peculiar to the Gothland style. They are singularly elegant specimens of the art, and worthy of being quoted if for that reason alone

Another peculiarity seems to be that the Gothland churches are all small buildings, like the Greek churches. There does not appear to have been any metropolitan basilica, or any great conventual establishment, but an immense number of detached cells and chapels scattered in groups all over the island, with very few that could contain a congregation of any extent.

ROUND CHURCHES.

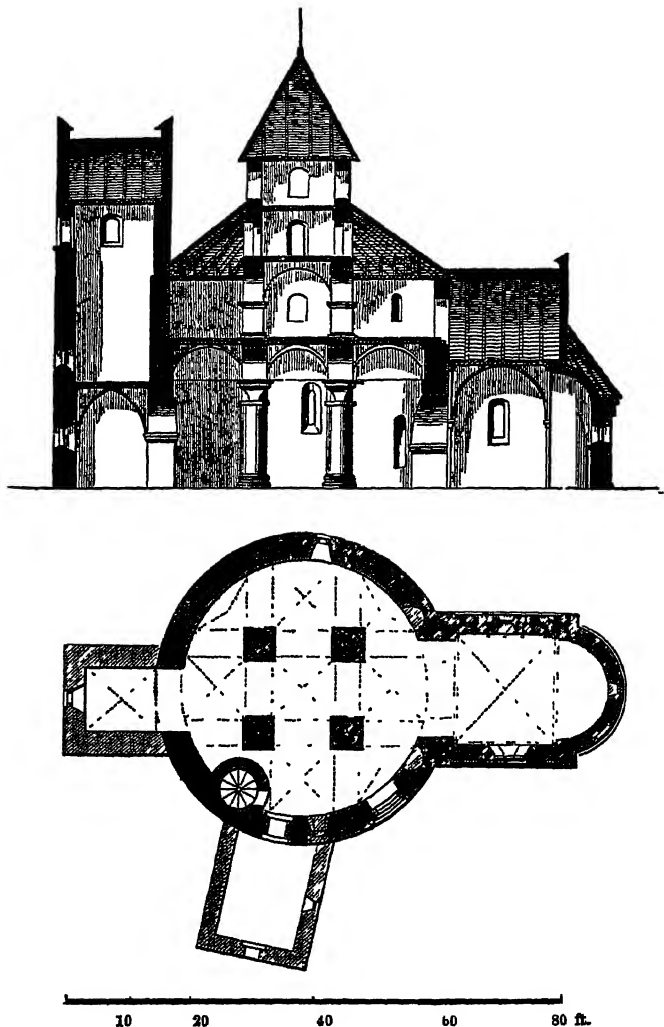
To the archæologist the Round Churches form the most interesting



791. Round Church, Thorsager. (From Marryat's 'Jutland and the Danish Isles'.)

group in the Scandinavian province, though to the architect they can hardly be deemed of much importance. They are, however, so remarkable that many theories have been formed to account for their peculiarities. The most general opinion seems to be that the circular form was adopted for defensive purposes; and this seems to be borne out by the description given in Major Heales' work, who, referring to the four examples in Bornholm (which are of the same type as others in the Scandinavian provinces), states, pp. 26 and 29: "Each consists of a circular nave, a chancel, and an apse." The dimensions are always moderate; the internal diameter of the naves being, Olska, 34 ft. 2 ins., Nyska, 35 ft. 4 ins., Nylarska, 38 ft. 2 ins., and Oester Larsker, 42 ft. 3 ins. (Woodcut No. 793)

"In two cases even the chancel wall are convex in plan, so that their ground plan is formed without a single straight line." The nave is covered with a vault carried on a central pier (except in the case of the Oester Larsker, where there are six piers, the space in the centre



792. Section and Ground-plan of Round Church, Thorsager. (From Marryat's 'Jutland and the Danish Isles'.)

being open to an upper storey). The second storey is similarly vaulted, and the central pier rises to carry the roof timbers of the third or upper storey. "The walls of the nave vary in thickness from 5 to 6 ft."—"beyond a small doorway and a few loopholes measurable by inches there are no external openings except in the upper storey, which

consists of a gallery formed in the thickness of the wall and lighted by loopholes arranged not to correspond with the openings by which the gallery is entered from the central chamber." The approach to this upper chamber as well as to that of the first floor is by narrow, steep, and crooked staircases in the thickness of the wall, which could be easily defended, at all events for a time, the assumption being that the church might be attacked by freebooters coming by sea whose onslaught would not be of long duration.

The circular form of church would seem to have been much more common in Northern Europe in the early centuries of the Christian faith than afterwards. In the richer and more populous South they



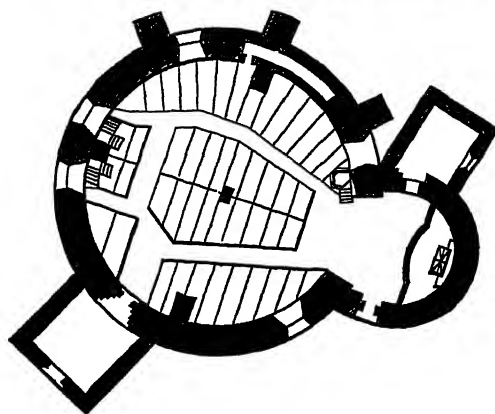
793. Round Church of Oester Larsker, Bornholm (From Marryat's 'Jutland and the Danish Isles'.)

were superseded, as has above been pointed out, by basilicas of more extended dimensions, into which they were frequently absorbed. In the poorer North they have sufficed for the scant population and remained unchanged.

Mr. Marryat enumerates eight examples in Denmark,¹ and there are at least as many, if not more, in Sweden. All are of Teutonic type—naves with small apses—as contradistinguished from the French or Celtic form, where the circular part became the choir to which the nave was added afterwards.

¹ Two in Zealand—Storehedinge and Biernede; one in Funen—Horne, at Faaborg; one in Jutland—Thorsager; and four in Bornholm—Oester Larsker, Nykers, Ols, and Ny. (Vol. ii. p. 49.)

That at Thorsager, in Jutland, though not one of the oldest, may be taken as a type of its class, and its arrangement and appearance will be understood from the preceding view, section, and plan (Woodcuts Nos. 791 and 792). The building is not large, the diameter of the circle internally being only 40 ft., and the floor encumbered by four



794. View and Plan of Hagby Church, Sweden. (From Marryat's 'One Year in Sweden'.)

great pillars; the total length over all is 90 ft. Originally it seems to have been intended as a two-storey church, the vault being omitted over the central compartment, as was the case in the Helge-Anders Church at Wisby (Woodcut No. 786). The whole design is certainly

pleasing and picturesque, though there is a little awkwardness in the way the various parts are fitted together.

The round Church at Oester Larsker, in Bornholm (Woodcut No. 793), is of exactly the same type as that at Thorsager, but older, and having more the appearance of being fortified than the other; there being a range of small openings immediately under the roof.

In Sweden there are some examples of round churches, the most typical being that at Hagby (Woodcut No. 794), though it is not so picturesque as the two last quoted, it differs in reality very little from



795. Läderbro Church and Wapenhus, Gothland. (From Marryat's 'One Year in Sweden')

them, showing a permanence and consistency of type throughout the whole province where they are found.

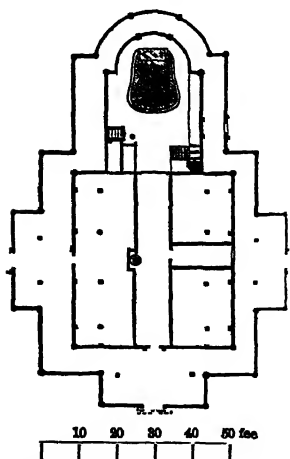
So great a favourite was this circular or octagonal form of nave, however, that it clung to the soil long after its meaning was lost, and we find it stretched into a tall octagonal spire in Läderbro Church, but still serving as a nave to a small choir, the foundation of which is said to date as far back as 1086. The octagon as we now see it certainly

belongs to the 13th or 14th century. Something of the same feeling may have led to the peculiar arrangement of Kallundborg Church (Woodcut No. 785). There four octagonal naves lead to as many choirs joined together in the centre. If we had more knowledge, perhaps we could trace the affiliation of all these forms, and complete a little genealogy of the race.

WOODEN CHURCHES.

Curious as these circular edifices certainly are, there is a group of wooden churches still existing in Norway which are as peculiar to the province and as interesting to the antiquary at least, if not to the architect, as anything found within its limits. They are not large, and, as might be expected from the nature of the materials with which they are constructed, they are fast disappearing, and in a few years not many probably will remain; but if we may judge from such accounts as we have, they were at one time numerous, and indeed appear to have been the usual and common form of church in that country. Everywhere we read of the wooden churches of Saxon and Norman times in our country, and of the contemporary periods on the Continent, but these have almost all been either destroyed by fire or pulled down to make way for more solid and durable erections. That at Little Greenstead in Essex is almost the only specimen now remaining in this country.

The largest of those now to be found in Norway is that of Hitterdal. It is 84 ft. long by 57 across. Its plan is that usual in churches of the age, except that it has a gallery all round on the outside. Its external appearance (Woodcut No 797) is very remarkable, and very unlike anything of stone architecture. It is more like a Chinese pagoda, or some strange creation of the South Sea islanders, than the sober production of the same people who built the bold and massive round Gothic edifices of the same age.



796. Plan of Church at Hitterdal.

Another of these churches, that at Burgund, is smaller, but even more fantastic in its design, and with strange carved pinnacles at its angles, which give it a very Chinese aspect.

That at Urnes is both more sober and better than either of these, but much smaller, being only 24 ft. wide by 65 ft from east to west. As may be seen from the view (Woodcut No. 798), it still retains a good deal

of the Runic carving that once probably adorned all the panels of the exterior, as well as the various parts of the roof. As these decayed they seem to have been replaced by plain timbers, which of course detract very much from the original appearance.

All the doorways and principal openings are carved with the same elaborate ornaments, representing entwined dragons fighting and biting each other, intermixed occasionally with foliage and figures.

This style of carving is found on crosses and tombstones, not only



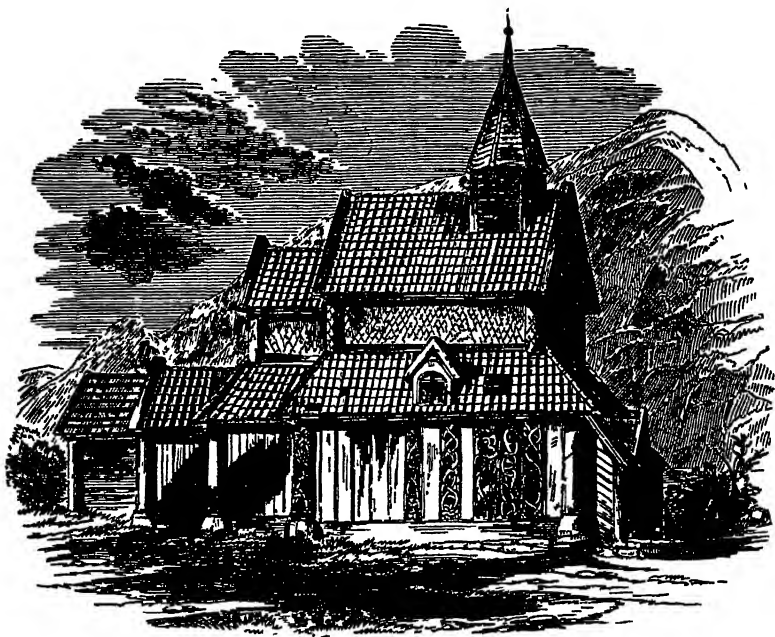
797. View of Church at Hitterdal (From Dahl's 'Holtz Bankmet in Norwegen'.)

in Scandinavia, but in Scotland and Ireland. It is only known to exist in its original form on wood in these singular churches.

There can be no doubt about the age of these curious edifices, for not only does this dragon-tracery fix them to the 11th or 12th century, but the capitals of the pillars and general character of the mouldings exactly correspond with the details of our own Norman architecture, so far as the difference of materials permits.

With the circular churches, and those at Wisby, these wooden churches certainly add a curious and interesting chapter to the history of Christian architecture at the early period to which they belong, and are well deserving more attention than they have received.

When our knowledge of the examples is more complete, we may perhaps be able to trace some curious analogies from even so frail a style of architecture as that of wood. Something very like these Norwegian churches is found in various parts of Russia. The mosques and other buildings erected in Cashmere and Thibet of the Deodar pinewood are curiously like them. The same forms are found in China and Burmah, and much of the stone architecture of these countries is derived directly from such a wooden architecture as this. It may



798.

Church of Urnes, Norway.

perhaps only be, that wherever men of cognate race strive to attain a given well-defined object with the same materials, they arrive inevitably at similar results. If this should prove to be the case, such a uniformity of style, arising without intercommunication among people so differently situated, would be quite as curious and instructive as if we could trace the steps by which the invention was carried from land to land, and could show that the similarity was produced by one nation adopting it from another, which all research has hitherto tended to prove was in reality the case.

BOOK VII.

CHAPTER I

INTRODUCTORY.

ENGLAND.

It is perhaps not too much to assert that during the Middle Ages 'Architecture was practised in England with even greater success than among any of the contemporary nations.' In beauty of detail and elegance of proportion the English cathedrals generally surpass their Continental rivals. It is only in dimensions and mechanical construction that they are sometimes inferior. So lovingly did the people of this country adhere to the Art, that the Gothic forms clung to the soil long after they had been superseded on the Continent by the classical Renaissance; and the English returned to their old love long before other nations had got over their contempt for the rude barbarism of their ancestors. It is now more than a century since Horace Walpole conceived the idea of reproducing the beauties of York Minster and Westminster Abbey in a lath and plaster villa at Strawberry Hill. The attempt, as we now know, was ridiculous enough; but the result on the Arts of the country most important. From that day to this, Gothic villas, Gothic lodges, and Gothic churches have been the fashion—at first timidly, and wonderfully misunderstood, but now the rage, and with an almost perfect power of imitation. The result of this revived feeling for Mediæval art which interests us most in this place is, that every Gothic building in the country has been carefully examined and its peculiarities noticed. All the more important examples have been drawn and published, their dates and histories ascertained as far as possible, and the whole subject rendered complete and intelligible. The only difficulty that remains is, that the works in which the illustrations of English art are contained range over 70 or 80 years—the early ones published before the subject was

¹ See Appendix, note 13.

properly understood; and that they are in all shapes and sizes, from the most ponderous folios to the most diminutive of duodecimos. Their number too is legion, and they therefore often go over the same ground. The one book that now seems wanted to complete the series of publications on the subject, is a clear and concise, but complete narrative of the rise and progress of the style, with just a sufficient amount of illustration to render it intelligible. Two volumes in 8vo, of 500 pages each, might suffice for the distillation of all that is contained in the 1001 volumes above alluded to; and with 1000 illustrations, if well selected the forms and peculiarities of the style might be rendered sufficiently clear. But less would certainly not suffice.

Under these circumstances, it will be easily understood that nothing of the sort can be attempted in this work. With only one-tenth of the requisite space available, and less than that proportion of illustration, all that can be proposed is to sketch the great leading features of the subject, to estimate the value of the practice of the English architects as compared with those on the Continent, and to point out the differences which arose between their methods and ours, in consequence of either the local or social peculiarities of the various nationalities.

This compression is hardly to be regretted in the present instance, since any one may with very little trouble master the main features of the history in some of the many popular works which have been published on the subject, and all have access to the buildings themselves. It need hardly be added, that these are far better and truer exponents of the feelings and aspirations of those who erected them than all the books that ever were written. Unless a man learns to read the lessons these stone books so vividly convey, by an earnest personal investigation of the monuments themselves, of one style at least, he will hardly ever be able to understand the subject; but for the purpose of such a study, the English Mediæval architecture is perhaps the most complete and perfect. Nowhere else can all the gradations of change be so easily traced; and in no other style was there so little interference from extraneous causes. Throughout, the English sought only to erect the building then most suitable to its destination, with the best materials available for the purpose; and the result is therefore generally more satisfactory and more harmonious than in other countries where the architects were more trammelled by precedents, or more influenced by local peculiarities.

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CHRONOLOGY.

		Years' duration.	Name of style.			Years' duration.	Name of style
Departure of Romans . . .	400	300	{ Megalithic— Stone Rude Monu- ments	Edward I . . .	1272	{ Perfected pointed decorated, or Edwardian style.	
Arthur . . .	480 to 542			Edward II . . .	1307		
To establish- ment of Hep- tarchy . . .	700			Edward III . . .	1326		
				Richard II . . .	1377		
To Conquest . . .		366	{ Early round-arched, or Saxon style	Henry IV . . .	1399	{ Late pointed Per- pendicular, or Lancastrian style	
William I . . .	1066	109		Henry V . . .	1412		
William II . . .	1087	{ Round-arched style, Norman.	Henry VI . . .	1422			
Henry I . . .	1100		Edward IV . . .	1460			
Stephen . . .	1135		Edward V . . .	1483			
Henry II . . .	1154		Richard III . . .	1483			
Henry II . . .	1175	97	{ Early pointed Lan- cet, or Planta- genet style	Henry VII . . .	1485	{ Fan-vaulted Tran- sitional, or Tudor style.	
Richard I . . .	1189			Henry VIII . . .	1509		
John . . .	1199			Edward VI . . .	1546		
Henry III . . .	1216			Mary . . .	1553		
				Elizabeth . . .	1557		
				To . . .	1602		

After the departure of the Romans, the various tribes that inhabited the island were left so feebly organised, and so unequally balanced, that they could find no better occupation for their time than that of cutting each other's throats; in which they were afterwards so ably seconded by the Saxons and Danes, that it is in vain to look for any development of the arts of peace among them. They were equal to the erection of a Stonehenge or an Avebury in honour of those who fell in the struggles against their foreign invaders; but beyond this their architectural aspirations do not seem to have reached.

With the establishment of the Heptarchy, and more especially after Alfred's glorious reign, we might expect something better. The country was then converted to Christianity. Churches were wanted; and there were Italian priests to be found who could tell the inhabitants what was being done at Rome and elsewhere on the Continent. But against this we have the knowledge that the dominant race was Saxon or Danish—Aryan *pur sang*—and art had consequently no place in their affections. Their churches were probably small and rude, just sufficient for their purposes, and no more; and designed, like railway stations, to last only till necessity compel an enlargement. Most probably, too, the greater number were built of wood; and for the true Saxon style we ought perhaps to look to the Norwegian wooden churches—described in the last book—as types of the style, rather than to the towers erected, probably, as additions to the original wooden churches. Of these towers, many still remain in our island; but in almost every case the wooden nave has been superseded by one of stone and generally in the pointed-arch style of architecture.

With the Norman Conquest a new state of things was inaugurated. Great tracts of country and great part of the wealth of the conquered

rares escheated to the Conqueror, and in the division of the spoil the clergy seem in some cases to have been even more fortunate than the laity. But however this may have been, it will be easily understood that a French hierarchy vowed to celibacy would be able to find no better way of employing their easily acquired wealth than in the display of architectural magnificence. During the century which succeeded the Conquest, the Saxon cathedrals, with scarcely an exception, were swept away to make room for nobler buildings designed by foreign architects, and all the larger abbey churches were likewise rebuilt. All this was done with such grandeur of conception, and so just an appreciation of the true principles of architectural effect, that even now the Norman nave, in spite of its rudeness, is frequently a more impressive specimen of art than the more polished productions of the succeeding centuries.

The impulse once so nobly given, the good work proceeded steadily but rapidly. During the three centuries which succeeded the Conquest, all the artistic intellect of the nation seems to have been concentrated on this one art. Poetry hardly existed, and Painting and Sculpture were only employed as the handmaids of architecture. But year by year new and improved forms of construction were invented and universally adopted. New mouldings, and new applications of carvings and foliage, were introduced, and painting on opaque substances and even on glass was carried to an astonishing degree of perfection. All this was done without borrowing and without extraneous aid, but by steadily progressing to a well-understood object with a definite aim. It is true that occasionally, as at Westminster Abbey, we detect the influence of French arrangements; but even there the design is carried on in so essentially English a manner, with details so purely English, as to make us feel even more strongly how essentially native the style had become.

The Ethnic combination, which led to the marvellous perfection of Gothic art during the Edwardian period, was as fortunate as can well be conceived. It was a Celtic hierarchy and aristocracy steadied by a Saxon people; with the substratum of an earlier Celtic race, held in absolute subjection by the Saxons, but rising again, at least partially, to the surface, under the Norman domination. It was something like what happened in Athens when a Dorian race was superimposed on one of Pelasgic origin; and, although the conditions were here reversed, and the field far more limited, the result was still most successful. Within the limits of a century, the French had jumped from the tentative example of St. Denis (1144) to the perfection of the Sainte Chapelle (1244). Our St. Stephen's Chapel was not finished till a century afterwards; but while the French hardly ever went beyond their great 13th century effort, in the 16th century we were building the Royal Chapels at Windsor, Westminster, and Cambridge.

The French wars and the wars of the Roses seem to have altered the original state of affairs to a very considerable extent. The Norman nobility were decimated—almost, indeed destroyed—and another stratum of society came gradually to the surface, but this time certainly not Celtic. On the walls of the churches of the Lancastrian period we read—faintly, it must be confessed—the great Saxon motto, “The greatest possible amount of accommodation at the least possible expenditure of money and thought.” During this period, too, the cathedral and conventual hierarchies were yielding before the development of the parochial system. It may be wrong to assert that the Reformation began as early as 1400, but it is true that the seeds were then sown, which afterwards ripened into the explosion of the Commonwealth. Some very grand churches were no doubt erected during the Lancastrian period, and some beautiful additions made to existing edifices, but they were hard and mechanical as compared with that which preceded them. They were the work of accomplished masons, not wrought out with the feelings of educated gentlemen; and, though we may admire, we cannot quite adore even the best and noblest productions of their age.

Under the Tudors the style went out in a blaze of glory. Nothing can be more gorgeous and fascinating than the three Royal Chapels, and the other contemporary fan-roofed buildings; but they are like the fabled dying hues of the dolphin—bright and brilliant, but unnatural and fleeting. It was the last spasmodic effort of an expiring style, and soon passed away.

After the reformation was complete there was no longer any want of new churches, and the great incentive of making a house worthy of the service of God was taken away; so that during Elizabeth’s reign, architecture was almost wholly occupied in providing new and more extensive mansions for the nobility and landed gentry. Spacious rooms, well-lighted galleries, comfortable chambers, and good accommodation for servants were the demands of the time, with sufficient stateliness, but at the least possible outlay. Comfort and economy are the inherent antitheses of architectural effect; and then, as now, brought the art down from its exalted pedestal almost to the level of a mere useful art. But the Bodleian Library and other buildings in our Universities show that the art lingered even in the 17th century, and that men still looked upon mullions and pinnacles as objects on which a little money might be advantageously spent. But it was no longer the old art: of course there are exceptions, but that was struck down on the battlefield of Towton in 1461, only to be partially galvanised into life at Bosworth, twenty-four years afterwards.

Although Gothic architecture continued to be employed in the Universities and in remote corners of the land long after it had ceased to be practised abroad, it must not therefore be assumed that the

people of England generally regarded it with admiration. To them it was the symbol of a superstition from whose influence they gloried in escaping, or the emblem of a feudal tyranny from which they were just emerging into partial freedom. During Elizabeth's reign the struggle was hardly over; the wounds of the combatants were still fresh and bleeding, the anger of the contest had by no means subsided, and they looked with hate and abhorrence on whatever recalled the stern realities of the past. We can now afford to look on the Middle Ages with far different feelings; our wounds have long since been healed, and hardly a scar remains. Time has thrown its veil of poetry over what was then a mere prosaic matter of fact, hiding those features which were once so repulsive, and softening much which even now it is impossible to forget. They shrunk from what they felt as a reality; we cherish it because it has faded into a dream.

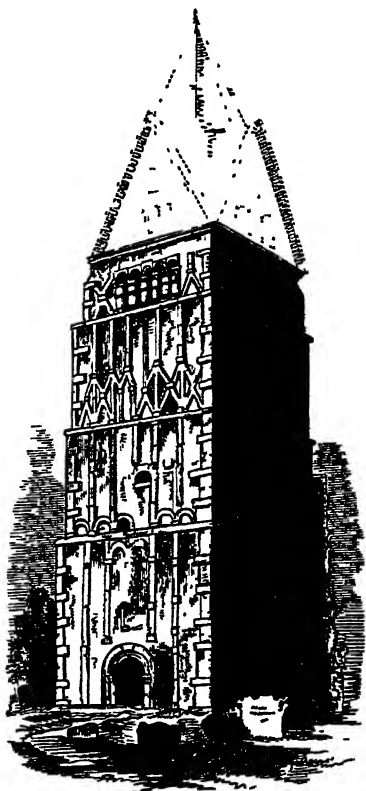
Bearing in mind the prevalence of these feelings, we should not be surprised that so soon as classical art was presented to them the people rushed to it with avidity. The world was then ringing with praise of the newly disseminated poetry of Virgil, the eloquence of Cicero, and the glorious narratives of Livy. A new light was dawning, and the cry arose on all sides, "Away with the Middle Ages, with their superstition and their tyranny. Roman greatness, Roman literature, and Roman art are to regenerate the world!" We are now convinced that the Classical Renaissance was not successful, but is it quite clear that a Mediæval revival will not prove even a greater and more disastrous mistake?

Be this as it may, in the whole range of artistic history it would be difficult to find any single monograph that might be made so complete in itself, or all the details of which are so well known, as that of Mediæval art in England. We know its birth and parentage; we can follow it through youth to the bloom of manhood. We can admire it in the staid maturity of its power, and in the expiring efforts of its failing strength; and we know the cause of its decay and death. To those who are able to grasp it, no story can be more interesting; while to those who desire to understand what architecture really is, how it can be cultivated so as to insure success, and by what agencies it is sure to decay and finally to die, no subject is capable of being more instructively treated.

CHAPTER II

SAXON ARCHITECTURE.

So few and indistinct are the traces of architectural art in England before the Norman Conquest, that for a long time it was a moot point among antiquaries whether or not any such thing existed as true Saxon architecture. The question may now be considered as settled in the affirmative. In his last edition, Rickman enumerates twenty churches in which fragments are found which certainly belong to the pre-Norman period, though no complete example can be pointed to as illustrating the style then prevalent. Since Rickman's death ten to fifteen more specimens have been discovered. Generally they are towers or crypts, as St. Winifred's at Ripon, or the pillars of a chancel-arch, as at Reculver. Sometimes it is a doorway, at others only a piece of rude walling. On a review of the whole, it is evident that architecture in England was certainly ruder and less developed than that on the Continent at the same age; both were, of course, based on the Roman art which preceded them; but, owing probably to our insular position, the attempted reproduction of

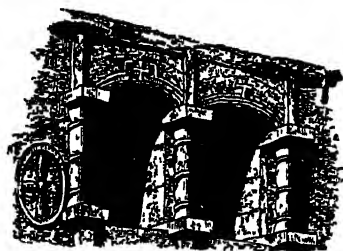


799. Tower of Earl's Barton Church.
(From Britton's 'Architectural Antiquities'.)

Roman work was of so barbaric a character as to have suggested at first a wooden origin for some of the features. Mr. G. G. Scott, however, in his essay on the history of 'English Church Architecture' (1871), says: "What we term Saxon architecture is in

reality but an English version of the contemporary art of Italy with which the Roman missionaries and their successors were well acquainted, and which they endeavoured with imperfect success to naturalize here." On this subject Mr Scott says, p 42. "There is no feature more characteristic of Saxon architecture than the use of rude pilaster strips. The imitation of the mode of bonding of such pilasters, in the construction of groins, and in the jambs of doorways and other openings, constitutes what is known as 'long and short work.' This has sometimes been supposed to be a tradition of wooden construction. It is certainly nothing of the kind. It represents simply the manner in which a classic pilaster is ordinarily constructed as distinguished from the mediæval method of forming a quoin." It should be observed also that the method of placing upright posts of timber at intervals for the sake of economy in filling in between with brick-nogging or forming plaster surfaces or battens, is a much later type of construction, the earliest timber church inexistence (and it is doubtful if that was built before Norman times), viz., Greensted Church, Essex, is constructed of huge balks of timber placed side by side, and is entirely unlike the disposition of the upright bands of stone found in Saxon work. Triangular heads to doorways and windows are found in St. Jean of Poitiers, in St. Front at Périgueux, and elsewhere in France, "where the scientific mode of the construction and the perfection of the details, forbid us to attribute it to the habit of building in wood." The baluster shafts also, Mr. Scott suggests, were copied from Roman balusters. The projecting hood-mould over doorway and window openings, which is not an independent ring of masonry as in Norman and Gothic work, is copied from the outer moulding of the Roman archivolt. In fact, as Mr. Scott observes, p. 43: "Our ruder Saxon churches exhibit, in however crude a form, the principles of a style distinctly arcuated—a style, that is, of which the typical forms are determined by scientific masonry. However rude and even barbarous in execution they may be, they are not rightly termed even debased Roman."

"They exhibit a purely arcuated style, true in its science, however imperfect in its art."



800. Windows, Earl's Barton. (From Britton.)

Although interesting to English antiquaries, the specimens of Saxon art are so insignificant as hardly to deserve much notice in a universal history of the art, and one or two examples will suffice to explain the peculiarities of the style. The tower of Earl's Barton in Northamptonshire contains in itself more undoubted Saxon characteristics than any other specimen yet described: its angles, as shown in

Woodcut No. 799, are constructed with that peculiar form of quoin known as "long and short," while its faces are ornamented by long pilaster-like slips connected by semicircular arches or more frequently by straight-lined cross-bracing which might be regarded as wooden in its character were it not for the through bond stones which mark their junction. The windows (Woodcut No 800) are formed by gouty balusters, looking very much as if they were turned in a lathe, and the whole arrangements bear out that character. Even more characteristic of the style than this, is the doorway under the tower of the



801.

Saxon Doorway at Monkwearmouth. (From a Photograph.)

church at Monkwearmouth in Durham (Woodcut No. 801). There seems no doubt but that it is part of the church which Benedict Biscop erected there in the 7th century. According to the chronicles, when he was enabled by the liberality of King Egfrid to found a monastery there, he went, in 674, to Gaul to procure masons who could erect it in the "Roman manner" that is, in imitation of the basilicas in Rome. The twined serpents with birds' beaks, on the right doorpost, are, as we know from manuscripts of that age, singularly characteristic of the style, but not, so far as I know, found elsewhere engraved in stone on a church door. Though quaint and interesting to the antiquary, it must be confessed there is not much grace or beauty in any feature of

the style, or even an approach to grandeur of dimensions in any example which has been spared to the present day.

Had any great conventual church or cathedral survived we might perhaps be forced to modify this opinion:¹ but the only one of which we know anything is that which was erected at Canterbury by Archbishop Odo in the years 940–960, to replace the older church of St. Augustine.² Even this, however, we only know from the description of Edmer, the singer, who saw it before it was destroyed by fire in 1067. Like the German churches of that age, it seems to have had two apses. The principal one, towards the east, was appropriated to the clergy, while the western one belonged to the laity, or, as we should now say, was devoted to parochial purposes.

Its walls and structure probably resembled the nave of Montier-en-Der (Woodcut No. 610), or the Basse Œuvre at Beauvais (Woodcut No. 608)—plain piers supporting round arches below, and small circular-headed windows in a plain wall above.

Outside the original church of St. Augustine to the eastward—at what distance we unfortunately are not told—Cuthbert, the second archbishop, about the year 750 erected a second church, “as a baptistery, and in order that it might serve as the burying-place of future archbishops;”³ thus combining the two rites in a ceremonial church apart from the basilica, exactly as was done in Italy during the Romanesque age. It is by no means improbable that the eastern termination of the present cathedral known as Becket’s Crown stands on the site of this old baptistery, and retains its dimensions, but it is difficult to prove this, so completely have all the features of the church been altered by subsequent rebuildings.

From what we know of Saxon MSS. and other indications, it would seem that painting was a favourite mode of decoration among the Saxons; and if so, their interiors may have been more successful as works of art than their external architecture would lead us to expect. But as no specimen of Saxon painted mural decoration has come down to our time, it is hardly safe to assume much with regard to this.

¹ Documentary evidence now establishes the fact that the nave of Waltham Abbey was Harold’s original work, though subsequently enriched by carving.

² This has been restored, as far as the materials admit, by Professor Willis, in his ‘Architectural History of Canterbury Cathedral,’ published in 1845

³ “Qui ecclesiam in orientali parte majoris ecclesie eidem pene contiguam in honore Beati Johannis Baptiste fabricavit; ut et Baptisteria et examinationes Judiciorum, &c.—et Archiepiscoporum corpora in ea sepelirentur.”—‘Anglia Sacra,’ vol. ii. p. 75.

CHAPTER III.

ENGLISH MEDIÆVAL ARCHITECTURE.¹

AN entirely new state of affairs was inaugurated in 1066 by the Norman Conquest of England. A new aristocracy, new laws, and a new language infused new life and energy into every department of the State, and an age of unwonted activity and brilliancy superseded the lethargic misrule of the Saxon period.

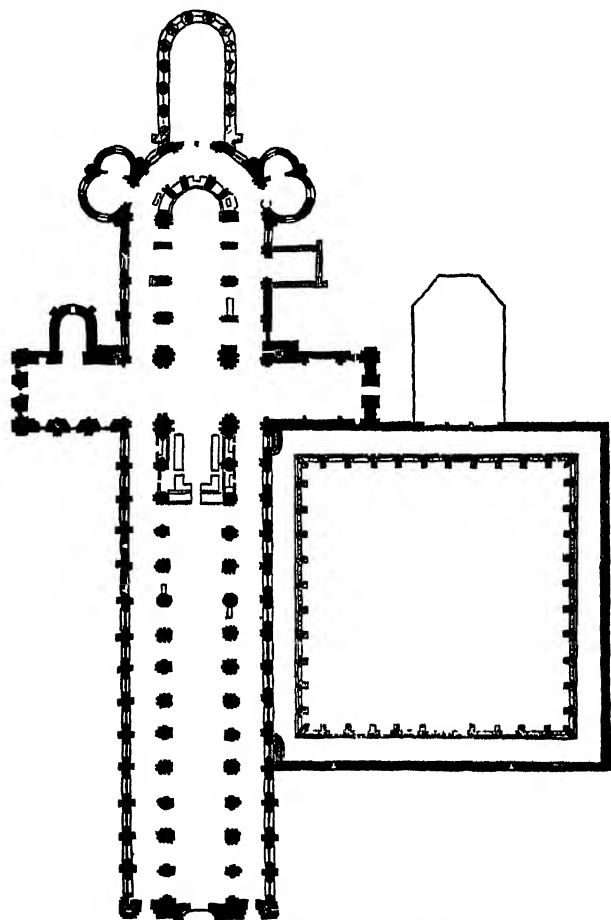
In nothing was this more manifestly evident than in architecture. Instead of a barbaric and debased style, a real lithic art was introduced and adopted at once, on a scale of magnificence but little known even in France at that time. Almost all our great cathedrals were either rebuilt, or at least remodelled, at that time, and great monastic institutions were founded all over the country, demanding churches and buildings on a scale undreamt-of before that time. The impulse thus given lasted for nearly five centuries, till the Saxon element in the population again came to the surface at the Reformation; but during that long period it continued without break or drawback, and forms a style complete and perfect in itself,—imported, it is true, in the first instance, but taking root in the soil, and with little aid from abroad growing into a thoroughly vigorous and acclimatised style. So completely is this the case, and so steady and uninterrupted was its progress, that it is impossible to separate its various stages one from another, but it is proposed to treat it as one style and in one chapter in the following pages. In a larger work it might be necessary to divide it into parts, but within our limits it will certainly be found more convenient, as it certainly is more logical, to treat it as a whole.

PLANS OF ENGLISH CATHEDRAL CHURCHES.

The most remarkable and universal peculiarity in the arrangement of English churches, when compared with those on the Continent, is their extraordinary length in proportion to their breadth. In this respect they seem to stand alone when compared with any buildings existing in other parts of the world. The ancients affected a double square; in other words, their temples were generally twice as long as they were broad. In the Middle Ages, on the Continent, this propor-

¹ See Appendix, note 18.

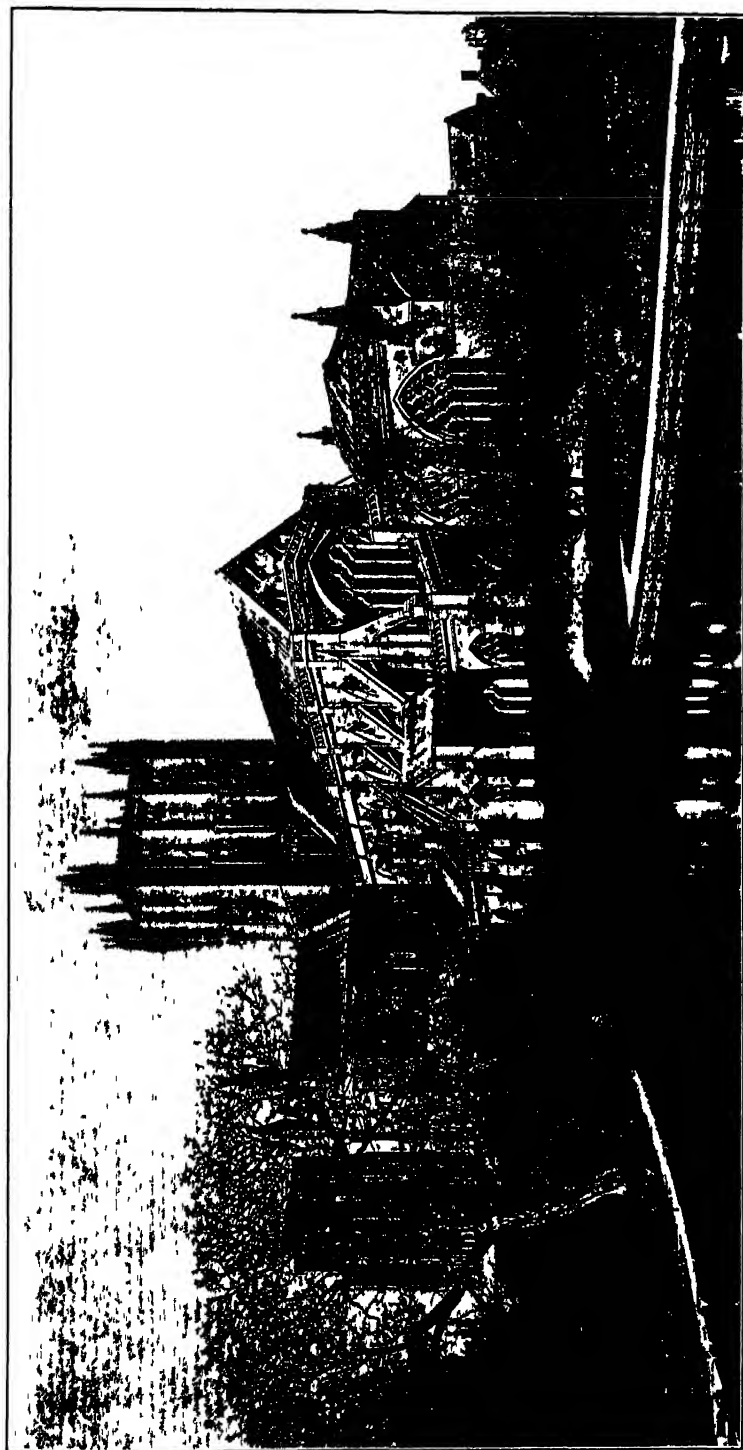
tion was generally doubled. Practically the internal width was multiplied by 4 for the length. This at least seems to have been the proportion generally aimed at, though of course it was often modified by circumstances. In England the larger churches generally reached the proportion of 6 times their width for their length. Most of our cathedrals have been so altered and modified by subsequent



802.

Plan of Norwich Cathedral. Scale 100 ft. to 1 in.

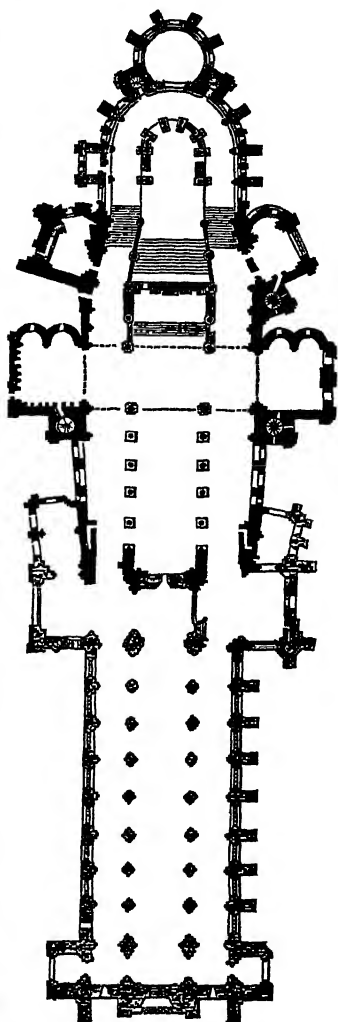
additions that it is difficult now to trace their original arrangements; but Norwich exists in plan almost exactly as originally erected (A.D. 1096-1135), as will be seen from the plan (Woodcut No. 802). The nave to the west of the intersection is more than 4 times its width (70×295). The rectangular part of the choir is more than a square, and with the apse and its aisle, exclusive of the chapels, makes altogether a length of 410 ft. internally, or nearly 6 squares. At Peter-



CATHEDRAL OF WELLS, ENGLAND

borough and Ely the proportion seems to have been as 5 to 1 to the centre of the apse, but if there was a circumscribing aisle or chapel, the longer proportion would obtain. At Canterbury and Winchester, and generally in the south-eastern cathedrals, as built more immediately under French influence, the original proportion was somewhat shorter; but so impressed were the English architects with the feeling that length was the true mode of giving effect, that eventually the two cathedrals last named surpassed it. Canterbury (Woodcut No 803) attained an internal length of 518 ft. while the width of the nave is only 72, or as 7 to 1. At Winchester (Woodcut No. 806) these dimensions are 525 and 82, or something less than 7 to 1, owing to the greater width of the nave.

It is extremely difficult to assign a satisfactory reason for this peculiarity of English plans. It arises so suddenly, however, in the English churches of the Norman age that it must have pre-existed in those of the Saxons; though why they should have adopted it is by no means clear. If these churches had wooden roofs, which was almost certainly the case, their naves might easily have been wider, and it can hardly have arisen from any æsthetic motive. As we now judge them, these early naves were badly proportioned for hearing an address from the bishop or prior, and as ill adapted for a multitude to see what was passing at the altar, but for pictorial effect they surpass everything erected on the Continent, unless with greatly increased dimensions of height



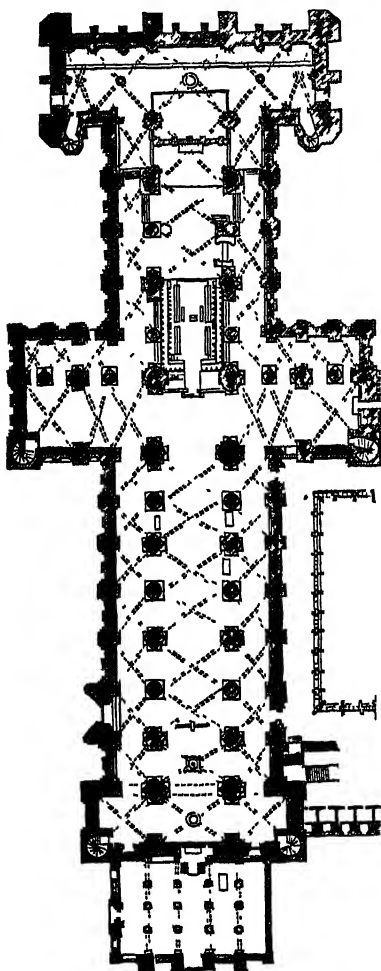
803 Plan of Canterbury Cathedral
Scale 100 ft. to 1 in.

or width. Whether, therefore, it were hit upon by accident or by design, its beauty was immediately appreciated, and formed the governing principle in the design of all the English cathedrals. It was a discovery which has added more to the sublimity of effect which characterises most of our cathedrals than any other principle introduced during the Middle Ages.

All the cathedrals above enumerated, indeed most of those which were designed by Norman prelates during the first half-century after the Conquest, were erected on very nearly the same plan as that at Norwich. Durham (1095-1133) was the first to show any marked deviation from the type¹ (Woodcut No. 804). The nave and choir

became nearly proportioned to one another, and for the first time we see a distinct determination from the first that the building should be vaulted. All this involved an amount of design and contrivance which entirely emancipated us from the Continental type, and may be considered as laying the foundation of the English style.

In addition to what was doing at Durham there prevailed an extraordinary activity in church-building in the North of England during the whole of the 12th century, owing to the erection of the great abbeys whose gigantic fossils still adorn every main valley in Yorkshire. As this part of the country was more remote from foreign influence than the South, the style developed itself there with a vigour and originality not found elsewhere; but its effect was appreciated, and when Lincoln was rebuilt, about the year 1200, the English style was perfected in all essential parts. This is even more remarkably shown, however, at Salisbury, commenced in 1220 and completed in 1258, with the exception of the spire, which does not appear to have formed part of the original design.



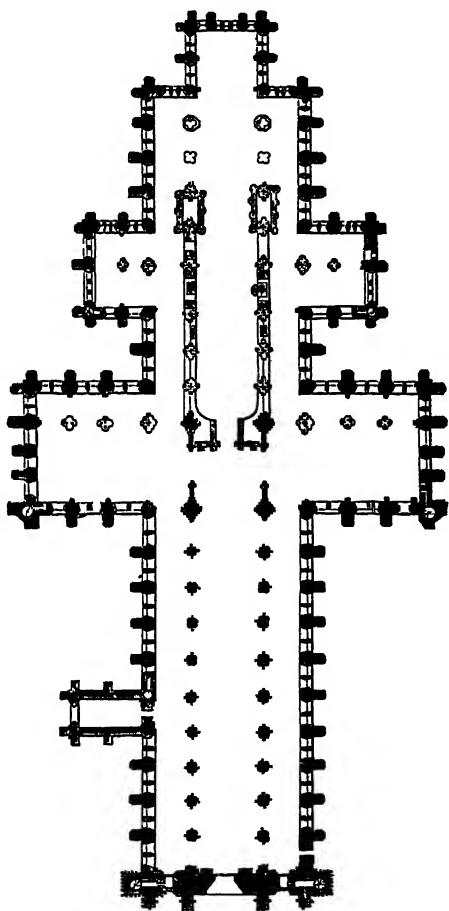
804. Plan of Durham Cathedral.
(From Billings.) Scale 100 ft. to 1 in

In this church we have a plan not only extremely beautiful, but perfectly original. There is scarcely a trace of French or foreign influence; everything is the result of the native elaboration during

¹ The internal dimensions of Durham Cathedral are 413 10 feet, exclusive of the Galilee. The nave is 81 feet wide, the choir, 77 2. (Billings.)

the previous century and a half. The internal dimensions, according to Britton, are 450 ft. by 78—a little under the English standard, but sufficiently long for effect. The apsidal arrangement, so universal in Norman cathedrals, has disappeared never to return, except in Westminster Abbey (1245–1269), and in some readjustments, as at Tewkesbury, and the square eastern termination may henceforth be considered as established in this country—the early symbol of that independence which eventually led to the Reformation.

Once the Salisbury plan came to be considered the true English type, the Norman cathedrals were gradually modified to assimilate their arrangements to it. The nave and transept of Winchester were already too extensive to admit of a second transept, but the choir was rebuilt on the new model, and when afterwards the nave was remodelled by William of Wykeham it became one of the most beautiful, as it continued to be the longest, of English cathedrals (556 feet, over all).



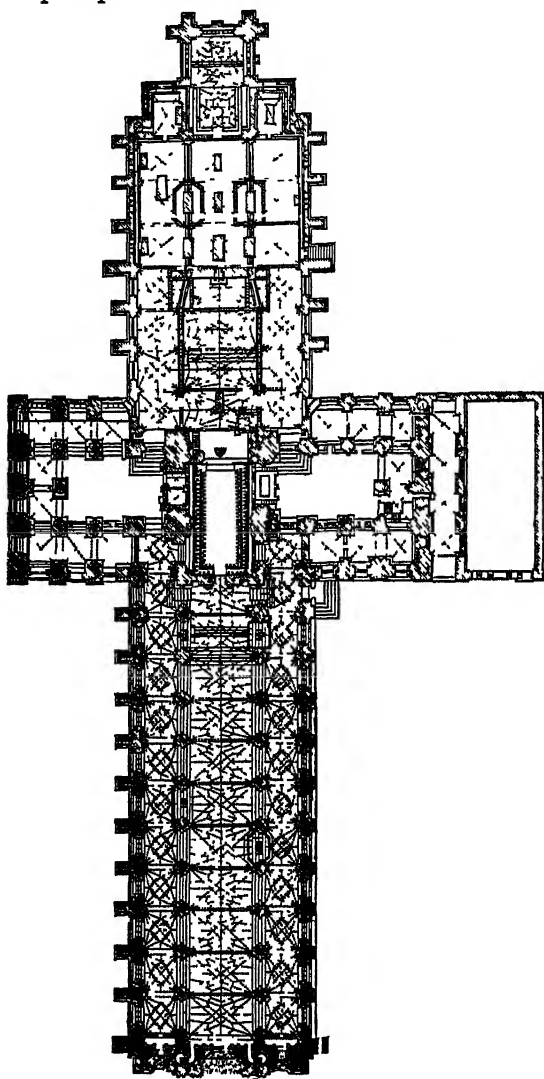
805. Plan of Salisbury Cathedral. Scale 100 ft. to 1 in.

About the same time Ely had a choir and presbytery added to it in lieu of the old Norman choir, which raised it to the very first rank among English churches;¹ and when, in 1322, by a fortunate accident

¹ The proper effect of this part of Ely Cathedral has been seriously marred by the erection of the new reredos. In itself a fair specimen of modern Gothic, it is placed so far from the choir as to lose its proper effect. It is painfully dwarfed by the large plain area in front of it. But worse than this, it cuts up and destroys the most beautiful presbytery in England

after the Angel Choir at Lincoln. The architects of Walsingham's time glazed two compartments of the triforium to throw light upon the principal object in the choir, which was intended 'to stand two bays farther forward. It would have been well if the 19th-century restorers had taken the hint.

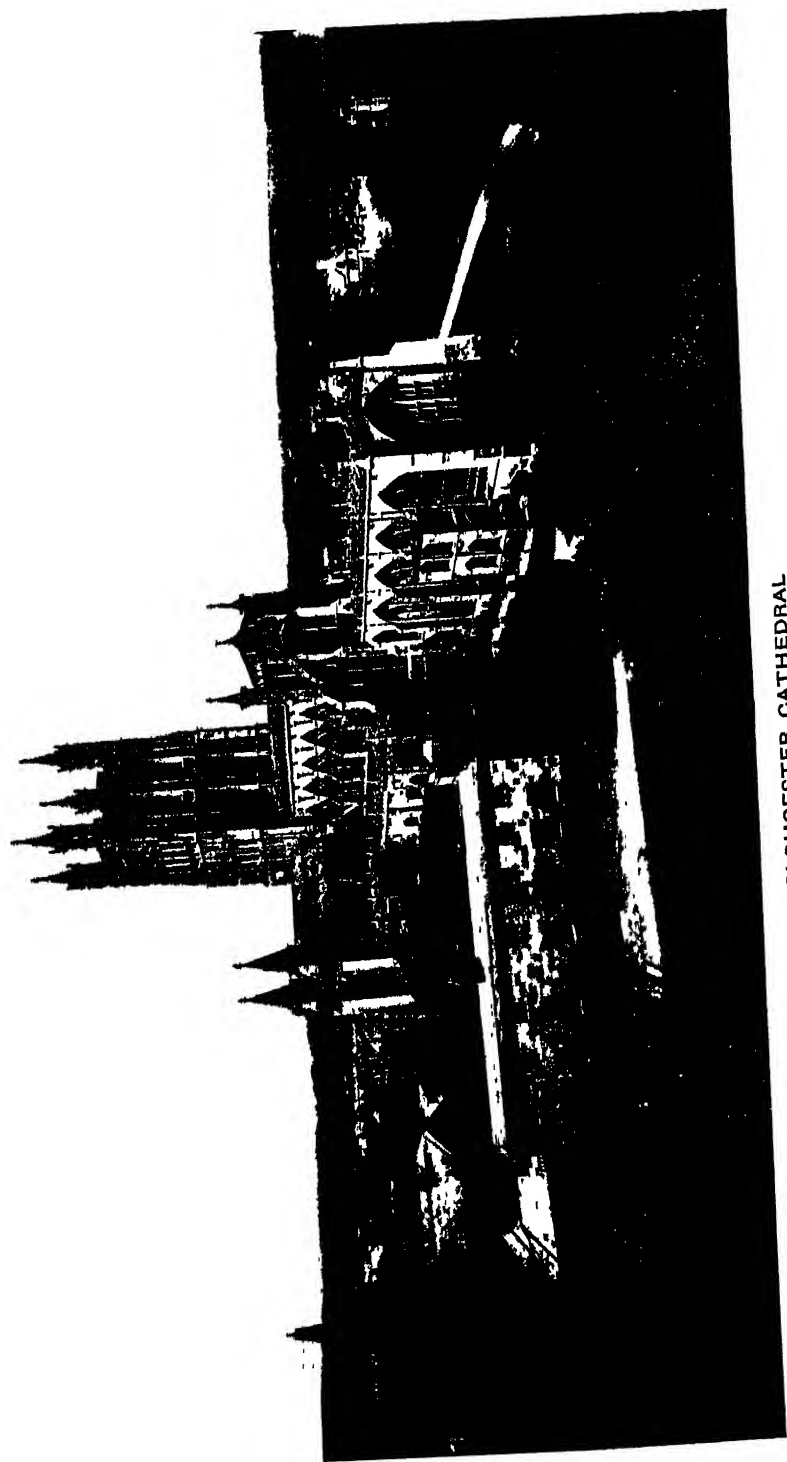
the old Norman tower fell, the intersection was rebuilt in a manner that rendered it exceptionally pre-eminent among its rivals. There is perhaps no feature in the whole range of Gothic architecture either



806. Plan of Winchester Cathedral. (From Britton.)
Scale 100 ft. to 1 in

here or on the Continent more beautiful than the octagon of Ely (Woodcut No. 808), as rebuilt by Alan of Walsingham, the sacrist at the time the tower fell. He, and he alone of all northern architects, seems to have conceived the idea of abolishing what was in fact the bathos of the style—the narrow tall opening of the central tower, which, though possessing exaggerated height, gave neither space nor dignity internally to the central feature of the design. On the other hand, the necessity of stronger supports to carry the tower frequently contracted still more the one spot where, according to architectural propriety, an extended area was of vital importance to the due harmony of the design.

In the present instance the architect took for the base of his design the whole width of the nave and aisles, constructing in it an octagon, the sides of which are respectively 25 and 30 ft., and the diameter 65 ft. in one direction east and west, and 70 ft. transversely. By this arrangement a central area was obtained more than three times the extent of that



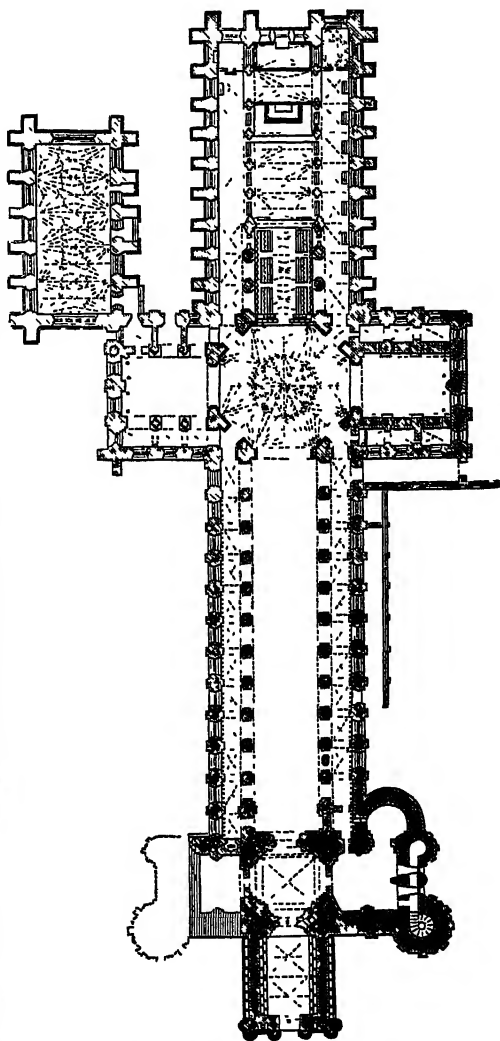
GLOUCESTER CATHEDRAL



originally existing, and, more than this, a propriety and poetry of design which are not to be found elsewhere. All this too was carried out with the exquisite details of the best age of English Gothic, and the effect in consequence is surpassingly beautiful. Unfortunately, either for want of funds, or of confidence in their ability to execute it, the vault, like that of York, is only in wood, though, from the immense strength of the supports, and their arrangement, it is evident that a stone vault was originally intended. The very careless—one might almost say ugly—way in which the lantern was finished externally, shows unmistakably that it was not intended to last long in its present form. Be that as it may, this octagon is in reality the only true Gothic dome in existence, and the wonder is, that being once suggested, any cathedral was ever afterwards erected without it. Its dimensions ought not to have alarmed those who had access to the domes of the Byzantines or Italians. Its beauty ought to have struck them as it does us.

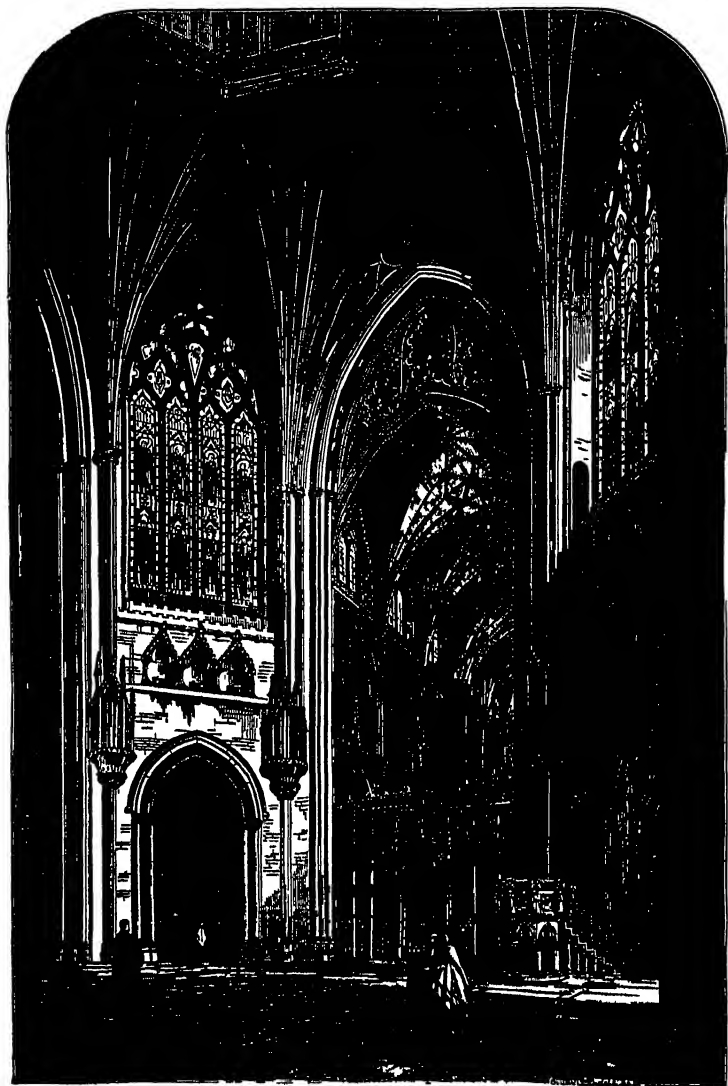
Perhaps the true explanation lies in the fact that it was invented late in the style. New cathedrals or great churches were very rarely commenced after the death of Edward the Third; and when they were, it was more often by intelligent masons, than by educated gentlemen, that they were designed.

After this, very little novelty was introduced into the design of



Plan of Ely Cathedral (From Dugdale.)
Scale 100 ft to 1 in

English cathedrals. York, however, was almost entirely rebuilt in the form towards which the architects were tending during the whole of the Middle Ages, and it may consequently be considered as the type at



which they were aiming, though hardly the one to which we can give the most unqualified praise. The nave was erected between the years 1291 and 1331, the choir between 1361 and 1405; the length internally is 486 ft.; the width of the choir, 100 ft.; of the nave, 106 ft.; both

these last were, unfortunately, dimensions which the architects did not feel themselves equal to grappling with in stone, so that the roof, like the lantern at Ely, was constructed of wood, in imitation of a stone vault, and remains so to this day

Owing to the great width attempted for the nave, York has not the usual proportion of length affected by other English cathedrals, and loses in effect accordingly. Its great peculiarity is the simplicity and squareness of its plan, so unlike what is found anywhere abroad. The church is divided into two equal parts, one devoted to the laity, one to the clergy. There are no apsidal or other chapels. Three altars stood against the eastern wall, and it may be 3 or 4 in the transept. Beyond this nothing. There is none of that wealth of private chapels which distinguishes Continental cathedrals and churches, or even Canterbury, the most foreign of our English examples. The worship even at that early period was designed to be massive and congregational, not frittered away in private devotion or scattered services, and marks a departure from Continental practices well worthy the attention of those who desire to trace the gradual development of the feelings of a people as expressed in their architecture, and the architecture only.

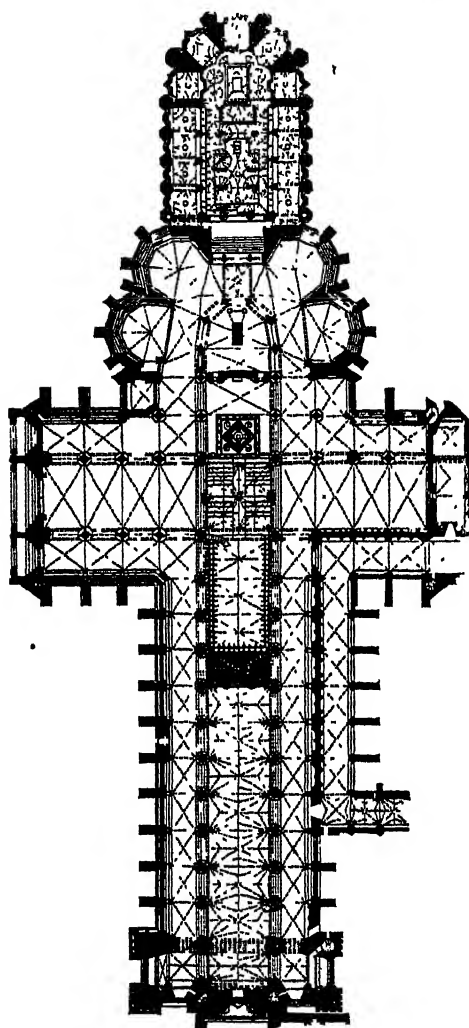
The abbey church at Westminster is exceptional among English examples, and is certainly, in so far at least as the east end is concerned, an adaptation of a French design. The nave, however, is essentially English in plan and detail, and one of the most beautiful examples of its class to be found anywhere. So, too, are the wide-spreading transepts; but eastward of these the form is decidedly that of a French cathedral. Henry VII.'s Chapel now stands over the space formerly occupied by the Lady Chapel; but before it was pulled down the circlet of apsidal chapels¹ was as completely and as essentially French as any to be found in the country where that feature was invented. In the choir, however, the architects betrayed their want of familiarity with the form of termination they had selected. The angle at which the three bays of the apse meet is far from pleasing, and there is a want of preparation for the transition, which tends to detract from the perfection of what would otherwise be a very beautiful design.²

¹ The foundations of the Lady Chapel of Henry III. were found a few years ago almost at the extreme east end of Henry VII.'s Chapel, so that it can scarcely be said to have formed part of a circlet.

² It should be remembered, however, that the first addition, made in 1220, was the original Lady Chapel; when Henry III. determined to rebuild the church and to adopt the plan of the

French chevet, the width of the other chapels would seem to have been governed by that of the Lady Chapel. Thus, however, was 30 ft wide—much greater than any French chapel. To complete the ring, therefore, he was obliged to carry them further west, so that the five chapels occupy a space equal in comparison to the seven chapels of Amiens, where the width of each is only 25 ft. A com-

As the choir was sepulchral, to accommodate the shrine of the



809 Plan of Westminster Abbey. Scale 100 ft to 1 in.

Confessor, the design was appropriate, and its introduction in this instance cannot be regretted, but on the whole, there is nothing in the church of Westminster to make us wish that this feature had become more common on this side of the Channel.

Notwithstanding the beauty of the result, it may still be considered as open to discussion whether the English architects were always correct in adhering to length in preference to height as the modulus of their designs. When, however, we reflect how immensely the difficulties of constructing a stone roof are increased by every addition to the width or height of the vault, we cannot but acknowledge their wisdom in stopping at that point where sufficient spaciousness was attained, without increasing constructive difficulties. No-

where in English cathedrals are we offended by mechanical *tours de force*. Everywhere there is sufficient solidity for security, and a

parison of the two chevets will show how ingenious was the English arrangement; and as the vaulting is essentially English in its setting out and in its design, it is only the idea of the plan which was borrowed. On this subject Mr Street remarks, p 426 ('Lectures on English Architecture,' Memoir of G. E. Street, R.A., by A. E. Street, M.A. 1883),

"Here the evidence of the building itself seems to be conclusive that the king had resolved to build a church after the model of the great French churches, but employed an English architect to design it, and he made his plan on lines which are distinct and different from those of any French church."

consequent feeling of repose most conducive to true architectural effect.

It may also be remarked that the strain of turning the head upwards detracts considerably from the pleasure of contemplating tall interiors, while the eye likes to dwell on long-drawn vistas which can be explored in a natural position. But, perhaps, the greatest advantage of moderate dimensions in section is that they do not dwarf either the worshippers or the furniture of the church. Everything in an English cathedral is in just proportion, which is certainly not the case in many Continental examples, and there is variety and a play of light and shade in the long aisles of our churches which is wholly wanting in French and German examples.

Another point on which a difference of opinion may fairly exist, is whether the square termination of our cathedrals is or is not more beautiful than the apsidal arrangements so universal abroad.

When, as at Salisbury, or Wells, or Exeter, there is a screen of open arches below the east window, it may safely be asserted that a polygonal termination would have been more pleasing, but when, as at York, or Gloucester, or Carlisle, the whole eastern wall is a screen of painted glass, divided by mullions and tracery of most exquisite design, judgment will probably go the other way. Such a window as that at York, 33 ft in width by 80 ft. in height, is a marvellous creation, which few architectural developments in any part of the world can rival or even approach. On the whole, perhaps, the true answer to the question, is that, where a number of smaller chapels are wanted, the chevet form is the best and most artistic termination for a church, where these are not required, the square form is the most beautiful, because it is the most appropriate, and, like every thing appropriate, capable of being made beautiful in the hands of a true artist.

VAULTS.

Whatever opinion may be formed as to the proportions of English cathedrals, or the arrangement of their plans, there can be no dispute as to the superiority of their vaults over those of all their Continental rivals. The reasons for this are various, and not very recondite. The most obvious is the facility of construction which arose from the moderation just pointed out in the section of our churches.

The English always worked within their strength, instead of going to the very verge of it, like the French, and they thus obtained the power of subordinating constructive necessities to architectural beauty. Thus the English architects never attempted a vault of any magnitude till they were sufficiently skilled in construction to do it with facility. In a former chapter it has been pointed out how various and painful

were the steps by which the French arrived at their system of vaulting—first by pointed tunnel-vaults and a system of domes, then by a combination of quadripartite and hexapartite intersecting vaults, of every conceivable form and variety, but always with a tendency to domical webs, and to the union of all pre-existing systems. This experimenting, added to the great height of their roofs, and the slenderness of their clerestories, never left them sufficiently free to admit of their studying æsthetic effects in this part of the construction.

A second reason was, that for 150 years after the Conquest, our architects were content with wooden roofs for their naves. One of the earliest vaults we possess is that at Durham, commenced by Prior Melsonby, 1233. Long before that time the French architects had been trying all those expedients detailed at pp. 113, 114, and had thus succeeded in vaulting their central aisles a century before we attempted it. In doing so, however, their eyes got accustomed to mechanical deformities which we never tolerated, and they were afterwards quite satisfied if the vault would stand, without caring much whether its form were beautiful or not.

A third cause of the perfection of English vaults arose from the constant use of ornamental wooden roofs throughout the Middle Ages. The typical example of this form now remaining to us is that of Westminster Hall. But St Stephen's Royal Chapel had one of the same class, and there is reason to believe that they were much more common than is usually supposed.¹ All these were elaborately framed and richly carved and ornamented, often more beautiful than a stone vault, and quite as costly; and it seems impossible that a people who were familiar with this exquisite mode of roofing could be content with the lean twisted vaults of the Continental architects. The English alone succeeded in constructing ornamental wooden roofs, and, as a corollary, alone appreciated the value of a vault constructed on truly artistic principles and richly ornamented. Their eyes being accustomed to the depth and boldness of timber construction could never tolerate the thin weak lines of the French ogive, just sufficient for strength, but sadly deficient in expression and in play of light and shade.

Although it is, perhaps, safe to assert that there is not, and never was, a Saxon vaulted church in existence; and that, during the purely Norman period, though the side-aisles of great churches were generally vaulted, the central aisle was always ceiled with wood; yet, from a study of their plans, we are led to conclude that their architects always intended that they should, or at least might, be ornamented with stone roofs.

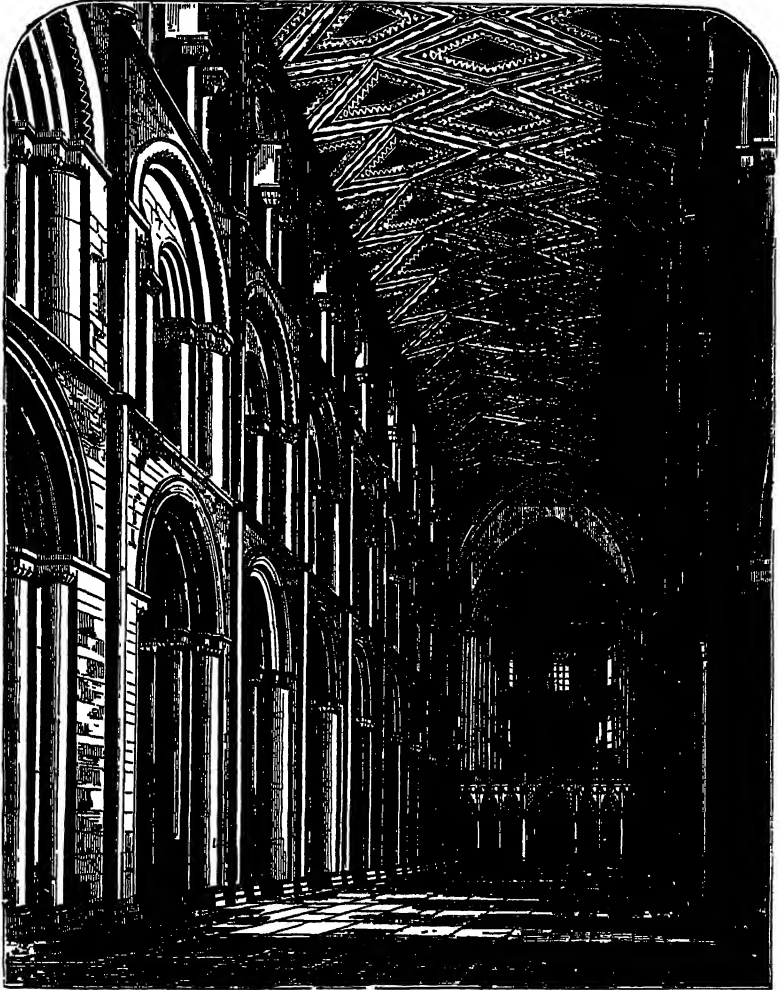
In the first place the area of their piers is enormous, and such as

¹ The roofs here alluded to must not be confounded with the barn-like roofs of remote village churches which modern architects are so fond of copying, but such roofs as that of St Stephen's Chapel, and many of those of the Lancastrian era.



WESTMINSTER ABBEY
FROM A PHOTOGRAPH

could never have been intended to support wooden roofs. Even making every allowance for the badness of the masonry, one-tenth of the sectional area would have sufficed, and not more was employed coteremporaneously in Germany when it was intended to use wooden



810.

Nave of Peterborough Cathedral ¹ Cath. Hb.)

G. J. Murray, del. 24.

roofs. There is also generally some variation in the design of the alternite piers, as if a hexapartite arrangement were contemplated

¹ This, and a considerable number of the woodcuts in this chapter, are borrowed from the plates of the beautiful series of 'Handbooks of the English Cathedrals,'

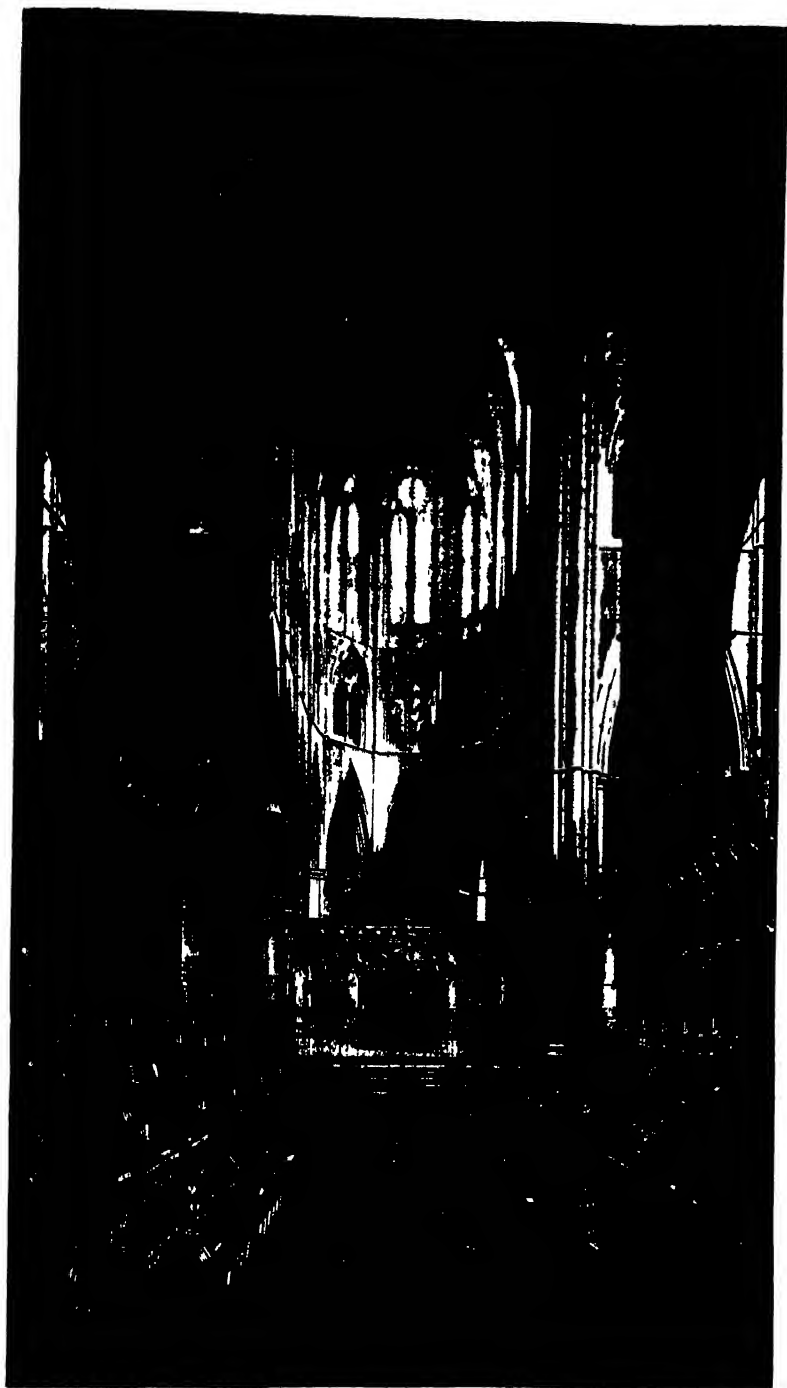
published by Mr. Murray. In order to prevent needless repetition, they are marked Cath. Hb.

But the evidence is not conclusive, for the vaulting shafts are usually similar, and in all instances run from the ground through the clerestory, and terminate with the copings of the wall, so that, in their present form, they could only be meant to support the main timber of the roof. It may be that it was intended to cut them away down to the string-course of the clerestory, as was actually done at Norwich in 1446, when the nave was vaulted; but at present we must be satisfied with the evidence that the architects were content with such roofs as that of Peterborough (Woodcut No. 810), which is the oldest and finest we possess. It is very beautiful, but certainly not the class of roof those massive piers were designed to support.

Though we may hesitate with regard to the intention of the builders of Norwich, Ely, or Peterborough, there can be no doubt, from the alternate piers and pillars, that when Durham (Woodcut No. 801) was commenced it was intended that the nave should be covered by a great hexapartite vault. Before, however, the intention could be carried out, the art of vaulting had been so far perfected that that very clumsy expedient was abandoned; and, by the introduction of a bracket in the nave, and afterwards of a vaulting shaft in the choir, a vault of the usual quadrilateral form was successfully carried out between the years 1233 and 1284.

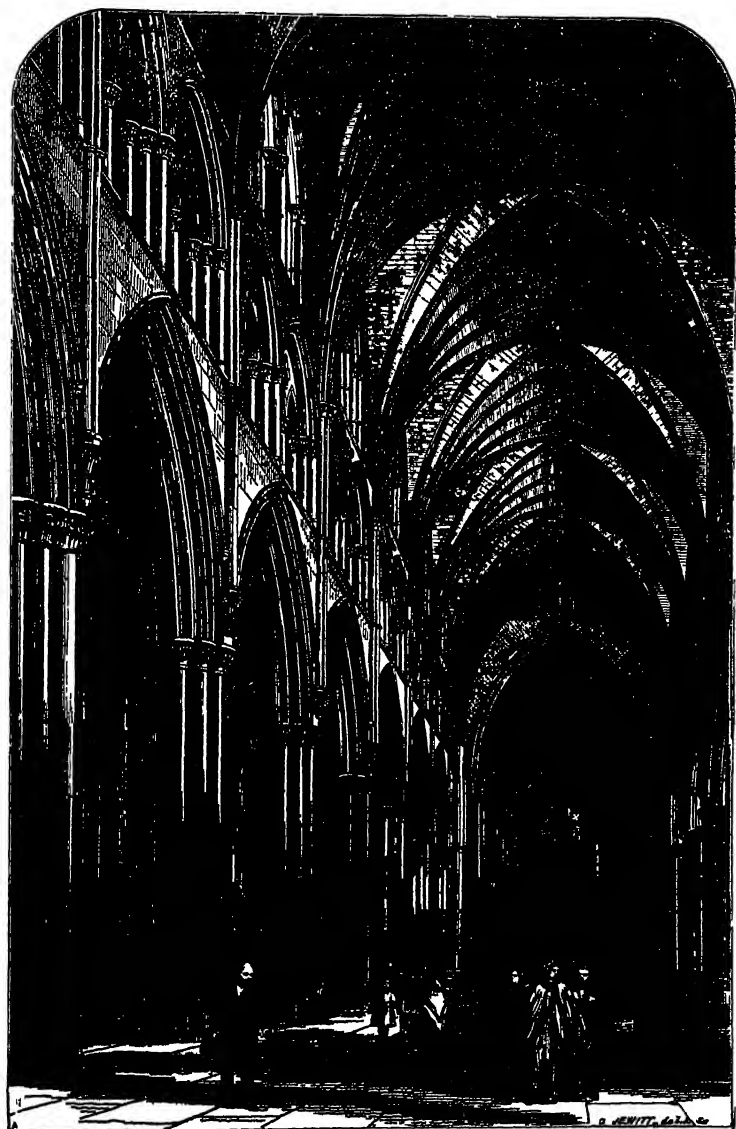
It is probably to St. Hugh of Lincoln that we owe the first perfect vault in England. Coming from Burgundy he must have been familiar with the great vaults which had been constructed in his country long before the year 1200, when he encouraged his new followers to undertake one not necessarily in the Burgundian style, but in that form with which they were conversant from their practice in erecting smaller side-vaults. He built and roofed the choir of Lincoln, immediately after which (1209-1235) the nave (Woodcut No. 811) was undertaken by Hugh of Wells, and its roof may be taken as a type of the first perfected form of English vaulting. It is very simple and beautiful; but it cannot be denied—and this is felt still more at Exeter—that the great inverted pyramidal blocks of the roof are too heavy for the light pier and pierced walls which support them. Another defect is, that the lines of the clerestory windows do not accord with the lines of the “severeys” of the vault. This defect was remedied at Lichfield, but nowhere else, until the invention of the four-centred arch and of fan-tracery. At Lichfield (Woodcut No. 812) the triangular form of the clerestory windows afforded a perfect solution of the difficulty, and gave a stability and propriety to the whole arrangement that never was surpassed, and never might have been relinquished had not their fatal fondness for painted glass forced the architects in this, as in other instances, to forego constructive propriety for indulgence in that fascinating mode of decoration.

Beautiful as these simple early roofs were felt to be, the great mass



INTERIOR OF WESTMINSTER ABBEY, LONDON

of the "severeys," or inverted pyramids, formed a very obvious defect. It was, however, easily remedied when once perceived. The earliest example of its successful removal is probably in the roof of the choir

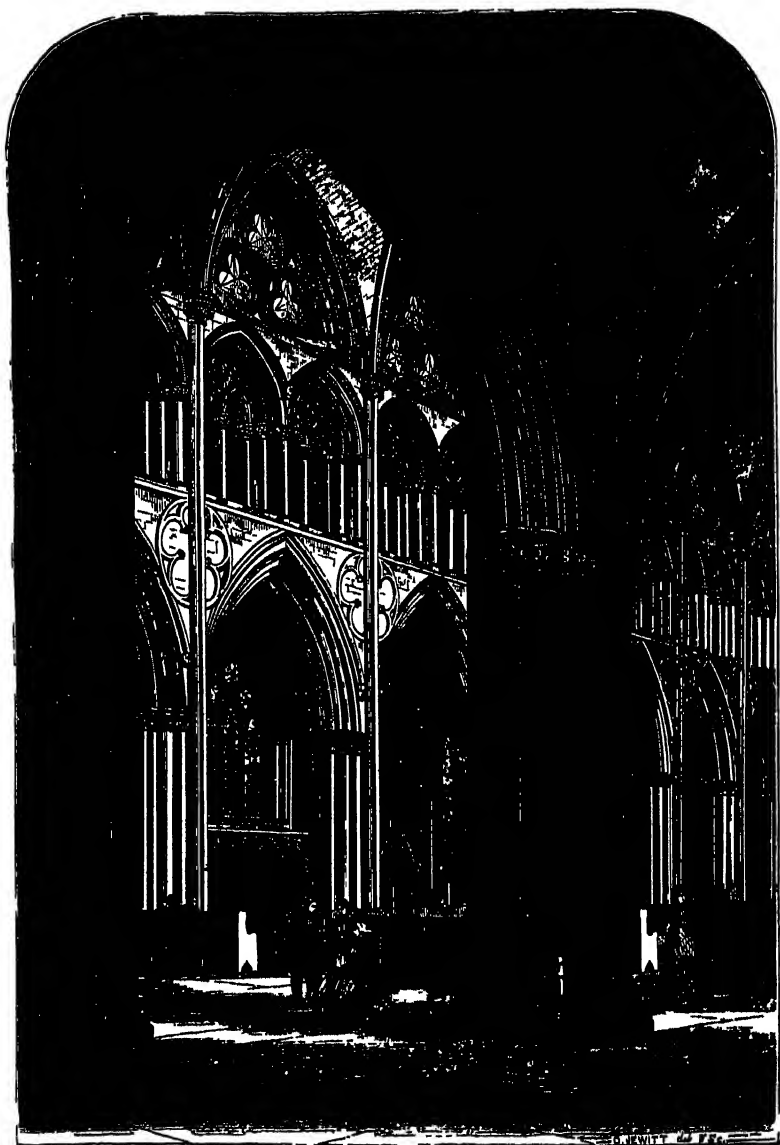


811

Nave of Lincoln Cathedral (Cath. Hb.)

at Gloucester (1337-1377) (Woodcut No. 813) In this instance the roof is almost a tunnel-vault with the window spaces cutting into it, so as to leave nearly one-third of the space unbroken; and, as the whole is covered with rich and appropriate tracery, the effect is highly pleasing

The same principle was afterwards carried to its utmost perfection in the roof of St. George's Chapel at Windsor. In that case a flat band was introduced as a separate constructive compartment in the centre,

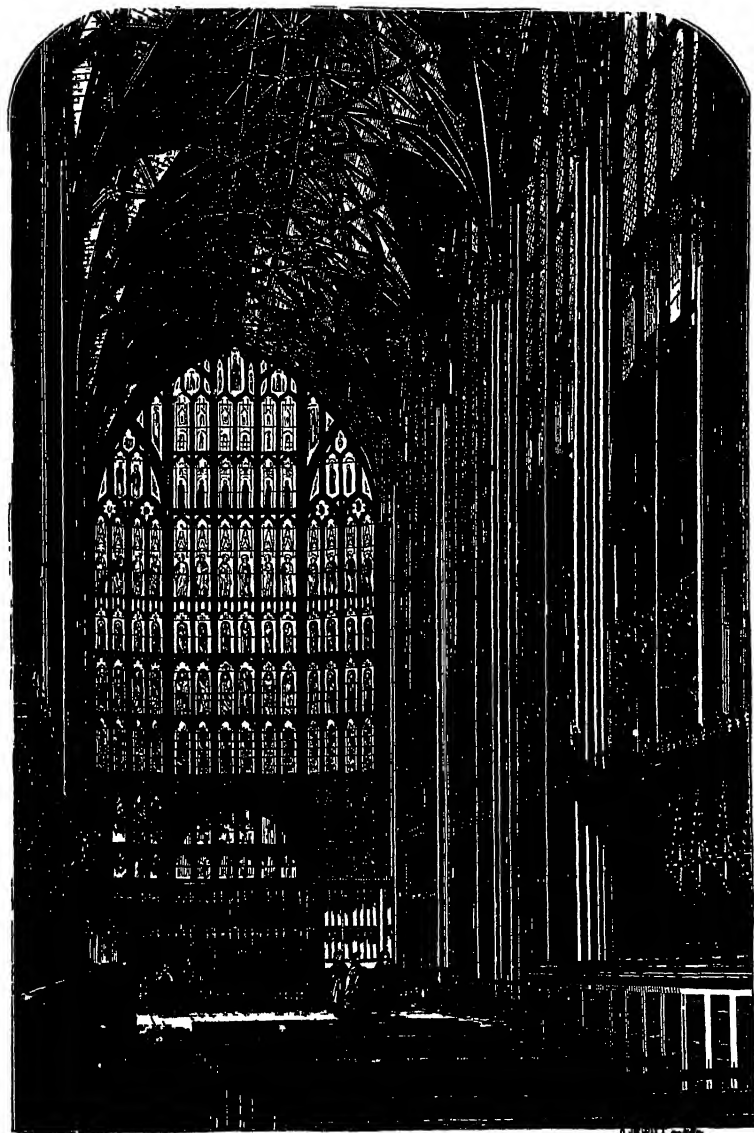


812.

Nave of Lichfield Cathedral (Cath. Hb.)

supported by the severys, and as the roof is ornamented with ribbings of the most exquisite design, it forms perhaps the most beautiful vault ever designed by a Gothic architect.

The great invention of the English architects in vaulting is the form usually known as fan-tracery. It is so beautiful in itself, and so exclusively English, that it may, perhaps, be worth while to retrace the



steps by which it was arrived at. This may lead to a little repetition, but the stone vault is so essentially the governing modulus of the style that its principles cannot be made too clear.

The original form of the intersecting vault is that of two halves of a hollow-sided square pyramid placed opposite one another in an inverted position¹. One half of such a vault is shown at A and A A (Woodcut No. 814, fig. 1). The English seem early to have tired of the endless repetition of these forms, and, after trying every mode of concealing their sameness by covering them with tracery, they hit on the happy expedient of cutting off their angles, as shown at B and B B.

Fig. 1

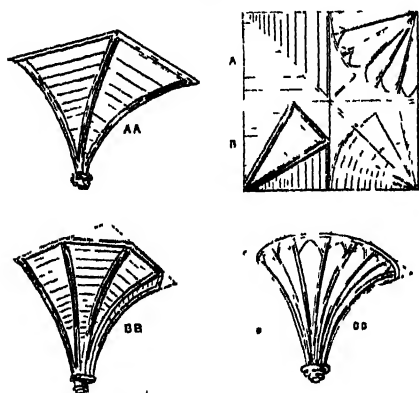
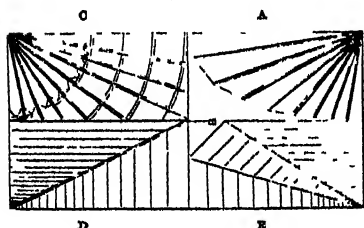


Fig. 2



814

Diagram of Vaulting.

This left a flat square space in the centre, which would have been awkward in the central vault, though in a side-aisle it was easily got over, and its flatness concealed by ornament. Arrived at this stage it was easy to see that by again dividing each face into two, as at C, fig. 1, the principal original lines were restored, and the central space could be subdivided by constructive lines to any extent required. By this process the square pyramid had become a polygonal cone of 24 sides, which was practically so near a circle that it was impossible to resist the suggestion of making it one, which was accordingly done, as shown at D and D D, fig. 1.

So far all was easy, but the fact of the flat central space resting on the four cones was still felt to be a defect, as indeed is apparent in such a vault as that of the cloisters at Gloucester (Woodcut No. 815), where a segment is used nearly equal to an equilateral spherical triangle. In this case they did not dare to employ a constructive decoration, but covered the space with circles so as to confuse and deceive the eye. At Windsor (Woodcut No. 816) the defect was obviated by using a low four-centred arch, invented for the purpose, so that the outer tangent of the conoid was nearly flat, and the principal transverse rib was carried to the centre without being broken—as the others might have been.

¹ This has already been explained in the chapters on French architecture, especially at pages 114 and 169.

had that mode of decoration been deemed expedient This may be considered the perfection of this kind of vaulting, and is perhaps the most beautiful method ever invented. At Westminster (as shown in Woodcut No. 817) the difficulty was got over by reversing the curve by the introduction of pendants. This was a clever expedient, and produced a startling effect, but is so evidently a *tour de force* that the result is never quite satisfactory, though on a small scale perfectly admissible

These devices all answered perfectly so long as the space to be roofed was square, or nearly so, but when this mode of vaulting came



815.

Vault of Cloister, Gloucester

to be applied to the bays of the central nave, which were twice as long in one direction as in the other, the difficulties seemed insuperable. By cutting off the angle as in the former instance (as at B, fig. 2, Woodcut No. 814), you may get either a small diamond-shaped space in the centre or a square, but in both cases the pyramid becomes very awkward; and by carrying on the system as before, you never arrive at a circle, but at an elliptical section as shown at D, fig. 2 (Woodcut No. 814).

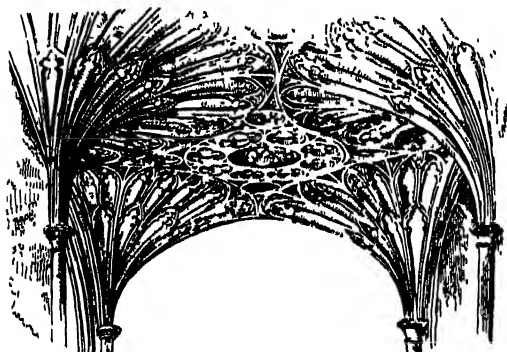
The builders of King's College Chapel strove to obviate the difficulty by continuing the conoid to the centre, and then cutting off

what was redundant at the sides, as in *n*, fig. 2, or, as shown in the view of the interior (Woodcut No. 846) further on.

The richness of the ornaments, and the loftiness and elegance of the whole, lead us to overlook these defects at Cambridge, but nothing can be less constructive or less pleasing than the abruptness of the inter-

sections so obtained.

In the central aisle of Henry VII.'s Chapel it was avoided by a bold series of pendants, supported by internal flying buttresses, producing a surprising degree of complexity, and such an exhibition of mechanical dexterity as never fails to astonish, and generally to please; though it must be confessed that it is at best a mere piece of ingenuity very unworthy of English art. By far the most satisfactory of these roofs is that at Windsor, where a broad flat band is introduced in the centre of the roof, throughout the whole length of the chapel. This is ornamented by panelling of the most exquisite design, and relieved by pendants of slight projection, the whole being in such good taste as to



816. Vault of Aisle at St. George's, Windsor.

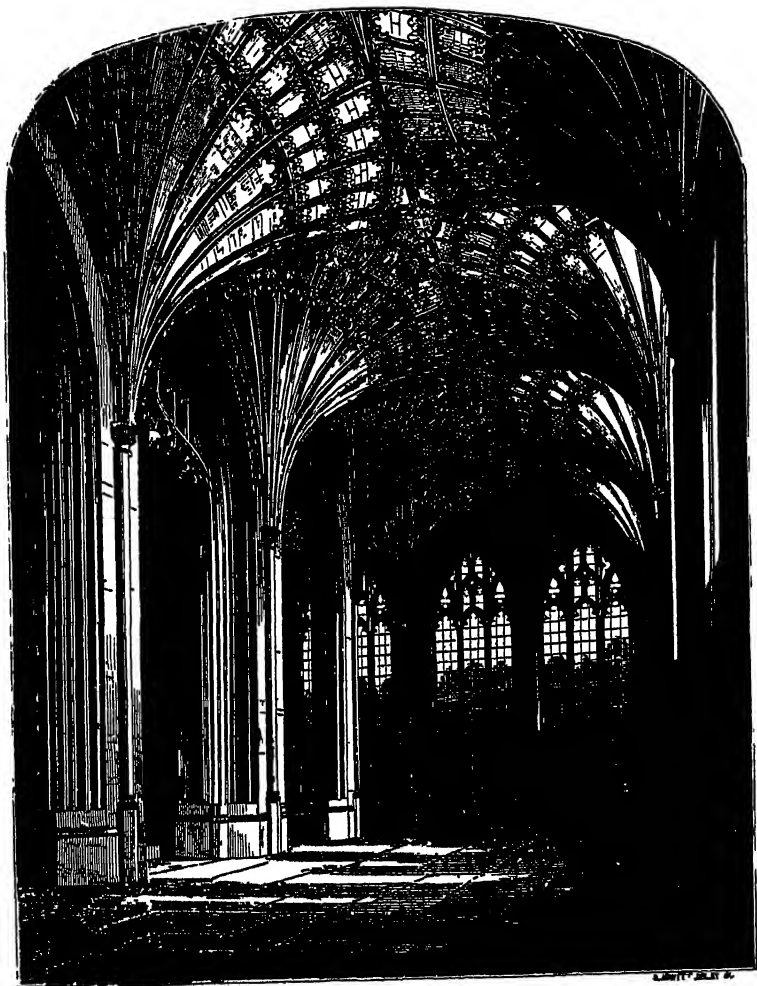


817. Aisle in Henry VII.'s Chapel, Westminster.

make it one of the richest and probably the most beautiful vault ever constructed. It has not the loftiness of that at Cambridge, being only 52 ft. high, instead of 78, nor is it of the same extent, and consequently it does not so immediately strike observers, but on examination it is far more satisfactory.

The truth of the matter seems to be that, after all their experience,

the architects had got back to precisely the point from which they started, namely, the necessity of a square space for the erection of a satisfactory intersecting vault. The Romans saw this, and never swerved from it. The side-aisles of all cathedrals and all cloisters adhered to it throughout, and, when it was departed from in the wider



818.

Retro-choir, Peterborough Cathedral (Cath. Hib.)

central aisles, it always led to an awkwardness that was hardly ever successfully conquered. In some instances, as in the retro-choir at Peterborough (1438-1528), two windows are boldly but awkwardly included in one bay (Woodcut No. 818), and the compartments are so nearly square that the difficulty is not very apparent, but it is sufficient

to injure considerably the effect of what would otherwise be a very beautiful roof.

In Henry VII's Chapel the difficulty was palliated, not conquered, by thrusting forward the great pendants of the roof and treating them as essential parts of the construction, and as if they were supported by pillars from the floor instead of by brackets from the wall. By this



819.

Choir Arches of Oxford Cathedral. (Cath. Hb.)

means the roof was divided into rectangles more nearly approaching squares than was otherwise attainable; but it is most false in principle, and, in spite of all its beauty of detail, cannot be considered successful.

Strange as it may appear from its date, the most satisfactory roof of this class is that erected by Cardinal Wolsey in the beginning of the 16th century over the choir of Oxford Cathedral. In this instance the

pendants are thrust so far forward and made so important that the central part of the roof is practically quadripartite. The remaining difficulty was obviated by abandoning the circular horizontal outline of true fan-tracery, and adopting a polygonal form instead. As the whole is done in a constructive manner and with appropriate detail, this roof—except in size—is one of the best and most remarkable ever executed

The true solution of the difficulty, in so far as the vault was concerned, would have been to include two bays of the side-aisles in one of the centre, but this would have necessitated a rearrangement of both plan and exterior to an extent the architects were not then prepared to tolerate, and it never was attempted, except perhaps in the instance of the retro-choir at Peterborough (Woodcut No. 818). Had it been done in King's College Chapel at Cambridge (Woodcut No. 846), it would have been in every respect an immense improvement. At present the length of King's College Chapel is too great for its other dimensions. Had there been six bays instead of twelve, its apparent length would have been considerably diminished, and the variety introduced by this change would have relieved its monotony without detracting from any of the excellent points of design it now possesses

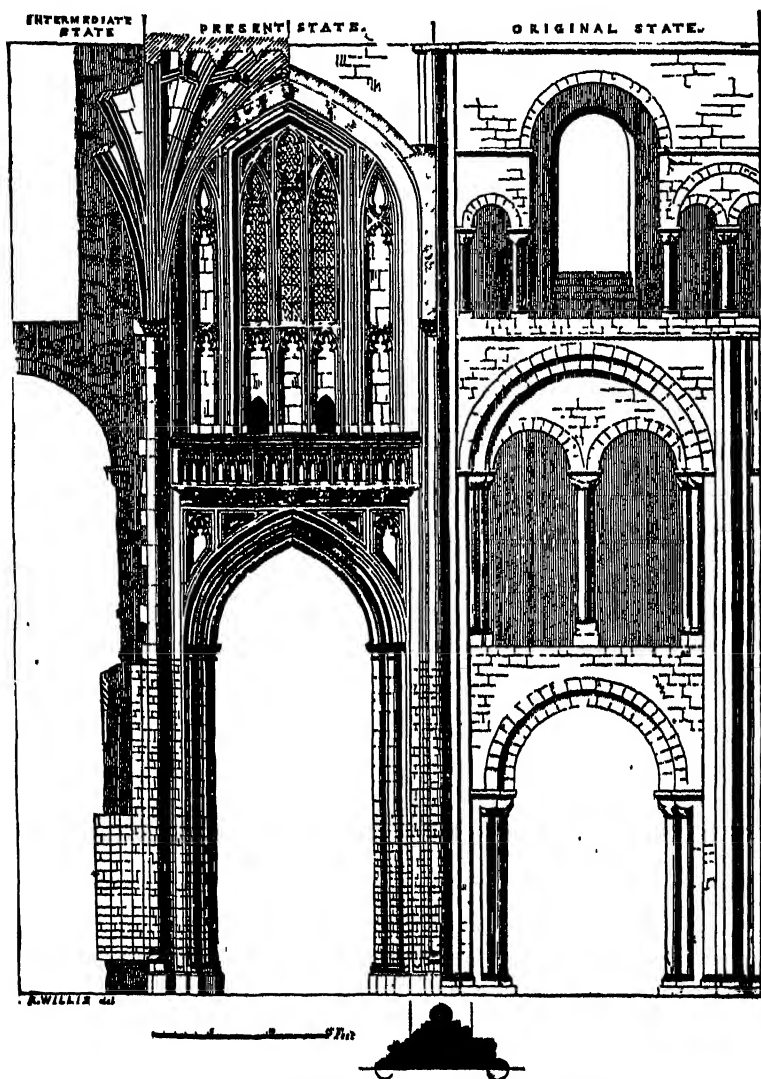
The English architects never attempted such vaults as those of Toulouse and Alby, 63 and 58 ft. respectively, still less such as that of Gerona in Spain, which is 72 ft. clear width. With our present mechanical knowledge, we could probably construct wider vaults still. Even the Mediæval architects in England might have done more in this direction than they actually accomplished, had they tried. On the whole, however, it seems that they exercised a wise discretion in limiting themselves to moderate dimensions. More poetry of design and greater apparent size is attainable by the introduction of pillars on the floor, and with far less mechanical effort. Unless everything is increased in even a greater ratio, the dwarfing effect of a great vault never fails to make itself painfully apparent. We may regret that they did not vary their vaults by such an expedient as the lantern at Ely, but hardly that they confined them to the dimensions they generally adopted.

PIER ARCHES.

Although the principles adopted by the English architects did not materially differ from those of their Continental confrères with regard to the arrangement of pier arches and the proportions of triforia and clerestories, still their practice was generally so sound and the results so satisfactory, that this seems the best place to point out what the Mediæval architects aimed at in the arrangement of their wall surfaces.

In the Norman cathedrals the general scheme seems to have been

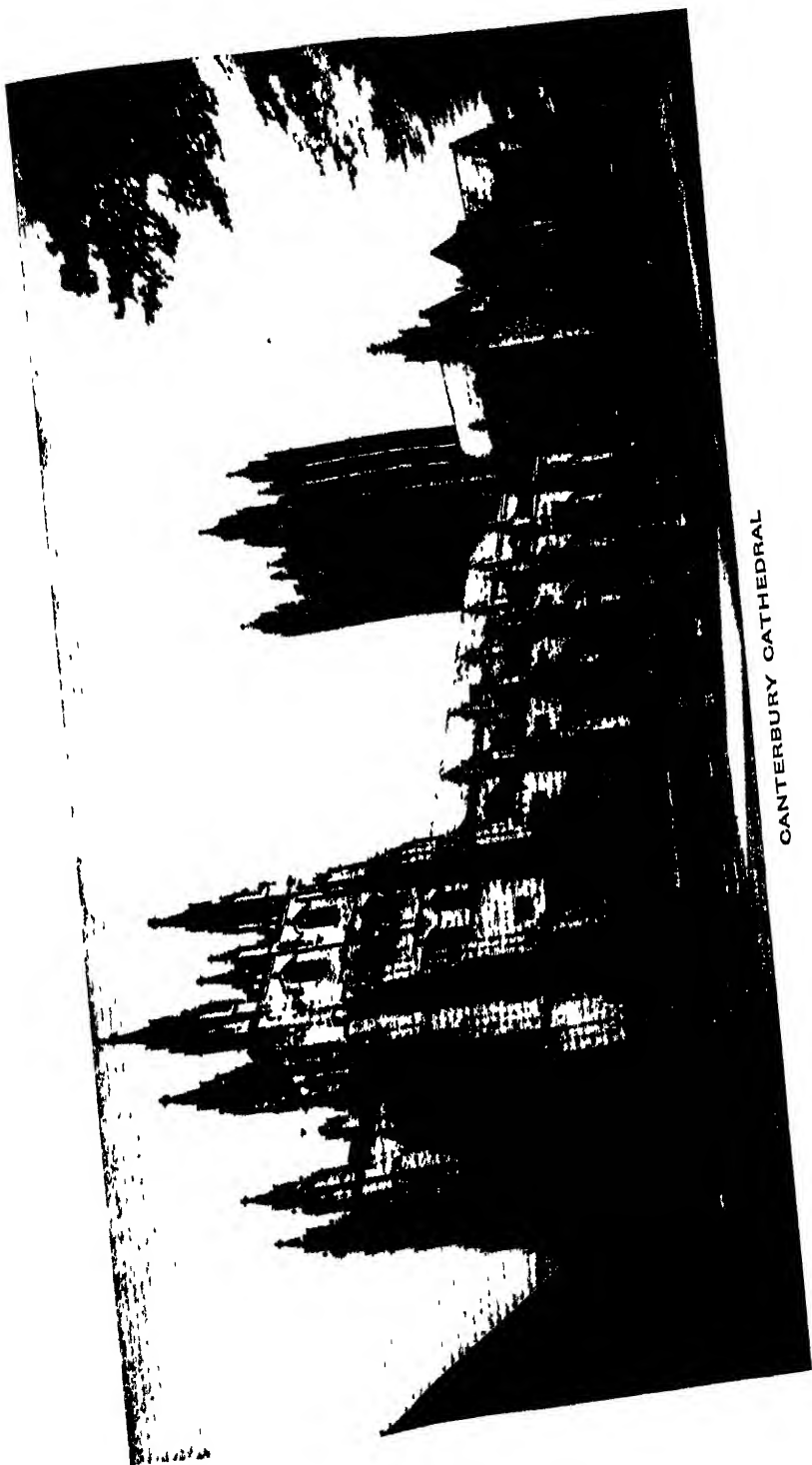
to divide the height into three equal parts, and to allot one to the pier arch, another to the triforium or great gallery, and the third to the clerestory. In all the examples we now have, the upper is the



820.

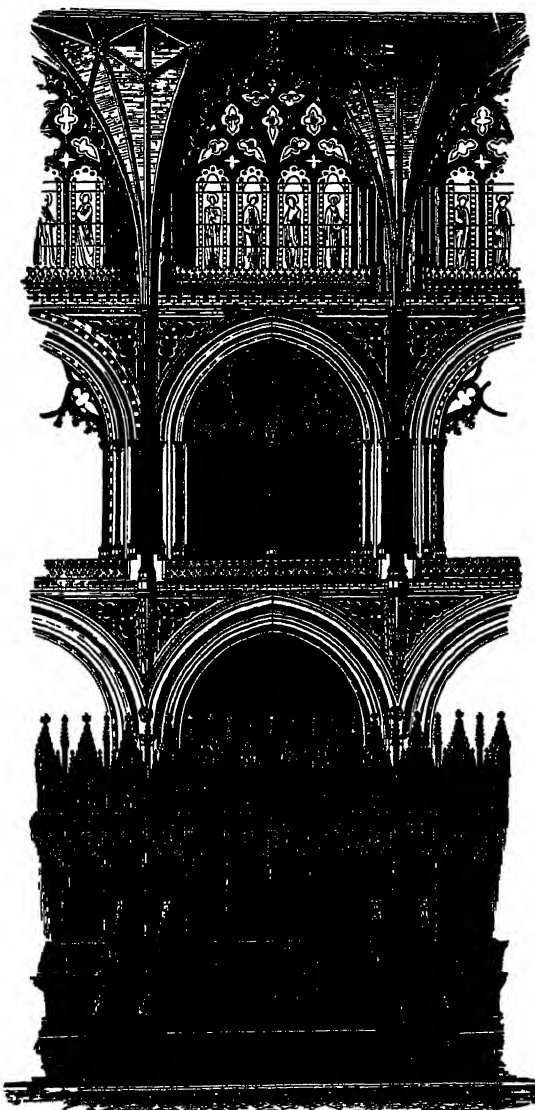
Transformation of the Nave, Winchester Cathedral. (Cath. Hb.)

smallest division; but I cannot help fancying that some arrangement of the timbers of the roof gave the additional height required. It is generally supposed that the roof at Peterborough (Woodcut No. 810) was originally flat. This, however, is by no means clear, nor that it started so low; but, be that as it may, the woodcut (No. 820) will



CANTERBURY CATHEDRAL

explain the usual arrangement, as well as the changes afterwards introduced. At Winchester the two lower divisions are practically equal, the upper somewhat less, and the alternate arrangement of the piers hints at a hexapartite vault, if such should ever come to be executed. When William of Wykeham undertook to remodel the style of the nave, he first threw the two lower compartments into one, as shown on the left-hand side of the cut. He then divided the whole height, as nearly as the masonry would allow him, into two equal parts, allotting one to the pier arches, and apportioning the upper as nearly as he could by giving two-thirds to the clerestory and one-third to the triforium. With pointed arches this was the most pleasing and satisfactory arrangement adopted during the Middle Ages; but when something very like it was attempted in the nave of Gloucester with round arches, the effect was most displeasing. Before the architects, however, settled down to this proportion, a variety of experiments were tried. One of the most successful was the nave of Lichfield Cathedral (Woodcut No. 812). Here the whole height is



821.

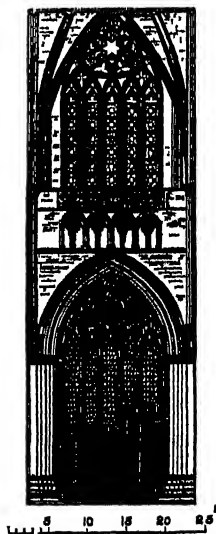
Choir of Ely Cathedral. (Cath. Hb.)

divided equally: one half is given to the pier arches, and the other divided equally between the clerestory and triforium. If the latter had been glazed externally, as was the case at Westminster Abbey and elsewhere, and made to look like part of the church, the whole might be considered as satisfactory. As it is, the area of the clerestory is so much less than that of the triforium, that the proportion is not quite agreeable, though the solidity and repose which this arrangement gives to the roof is above all praise.

All these objections were obviated in the three bays of the choir at Ely, which were rebuilt by Walsingham at the same time as the octagon. Here the triforium and clerestory are equal; but the upper window is so spread out, and so much is made of it, that it looks equal to the compartment below. The pier



822. Two Bays of the Nave of Westminster Abbey. Scale 25 ft. to 1 in.



823. One Bay of Cathedral at Exeter. Scale 25 ft. to 1 in.

arch below is also subdued to less than half the whole height, so as to give value to the upper division. These proportions are derived from the very beautiful Early English presbytery beyond; but they are here used with such exquisite taste and such singular beauty of detail that there is perhaps no single portion of any Gothic building in

the world which can vie with this part of the choir of Ely for poetry of design or beauty of detail.

The perfection of proportion, as of many other things, was reached in Westminster Abbey (1245-1269). Here the whole height is divided into two equal parts, and the upper subdivided into three, of which one is allotted to the triforium, and two to the clerestory. It is true this involves the necessity of springing the vault from a point half way down the clerestory windows, and thus the lines of the severies do not accord quite with those of the lights, but at best it is a choice of difficulties, and the happy medium seems to have been reached here more successfully than elsewhere. The proportion of the width of a bay to its height is here also most pleasing, it is as 1 to $5\frac{1}{2}$.¹ Sometimes, as at Exeter, it sinks as low as 1 in 3, but the whole effect of the building is very much destroyed by the change.

Shortly after this, as in the choir at Lichfield (1250-1325) or at Exeter (1308-1369), the mania for the display of painted glass upset all these arrangements—generally at the expense of the triforium. This feature was never entirely omitted, nor was it ever glazed internally, as was frequently the case on the Continent, but it was reduced to the most insignificant proportions—sometimes not pierced—and, with the wider spacing just alluded to, deprived the English side screen of much of that vigour and beauty which characterised its earlier examples.

WINDOW TRACERY.

The date of the introduction of the pointed arch in England—for it may be considered as established that it was *introduced*—is a question which has been much discussed, but is by no means settled. The general impression is that it was at the rebuilding of the cathedral of Canterbury after the fire of 1174 that the style was first fairly tried. The architect who superintended that work for the first five years was William of Sens; and the details and all the arrangements are so essentially French, and so different from anything else of the same age in England, that his influence on the style of the building can hardly be doubted. Of course it is not meant to assert that no earlier specimens exist; indeed, we can scarcely suppose that they did not, when we recollect that the *pointed arch* was used currently in France for more than a century before this time, and that the *pointed style* was inaugurated at St. Denis at least thirty years before. Still this is probably

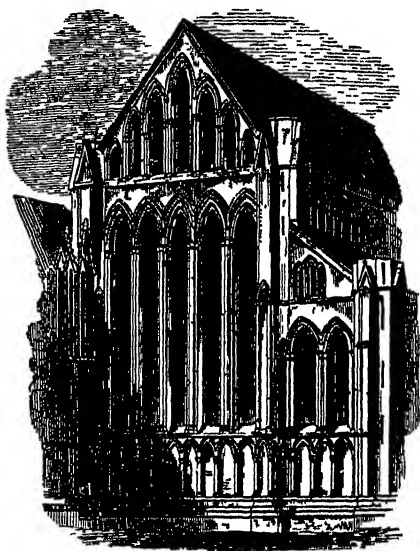
¹ In Woodcut No 822 the right-hand bay is that of the nave generally, the left-hand bay is adapted to the greater width of the aisle of the transept, and is less pleasingly proportioned in consequence.

Woodcuts Nos 822 and 823 are drawn to the scale of 25 feet to 1 inch, or double that usually employed for elevations in this work.

the first instance of the style being carried out in anything like completeness, not only in the pier arches and openings, but in the vaults also, which is far more characteristic

Even after this date the struggle was long, and the innovation most unwillingly received by the English, so that even down to the year 1200 the round arch was currently employed, in conjunction with the pointed, to which it at last gave way, and was then for three centuries banished entirely from English architecture.

Be this as it may, in their treatment of tracery, which followed immediately on the introduction of the pointed arch, the English architects showed considerable originality in design, though inspired

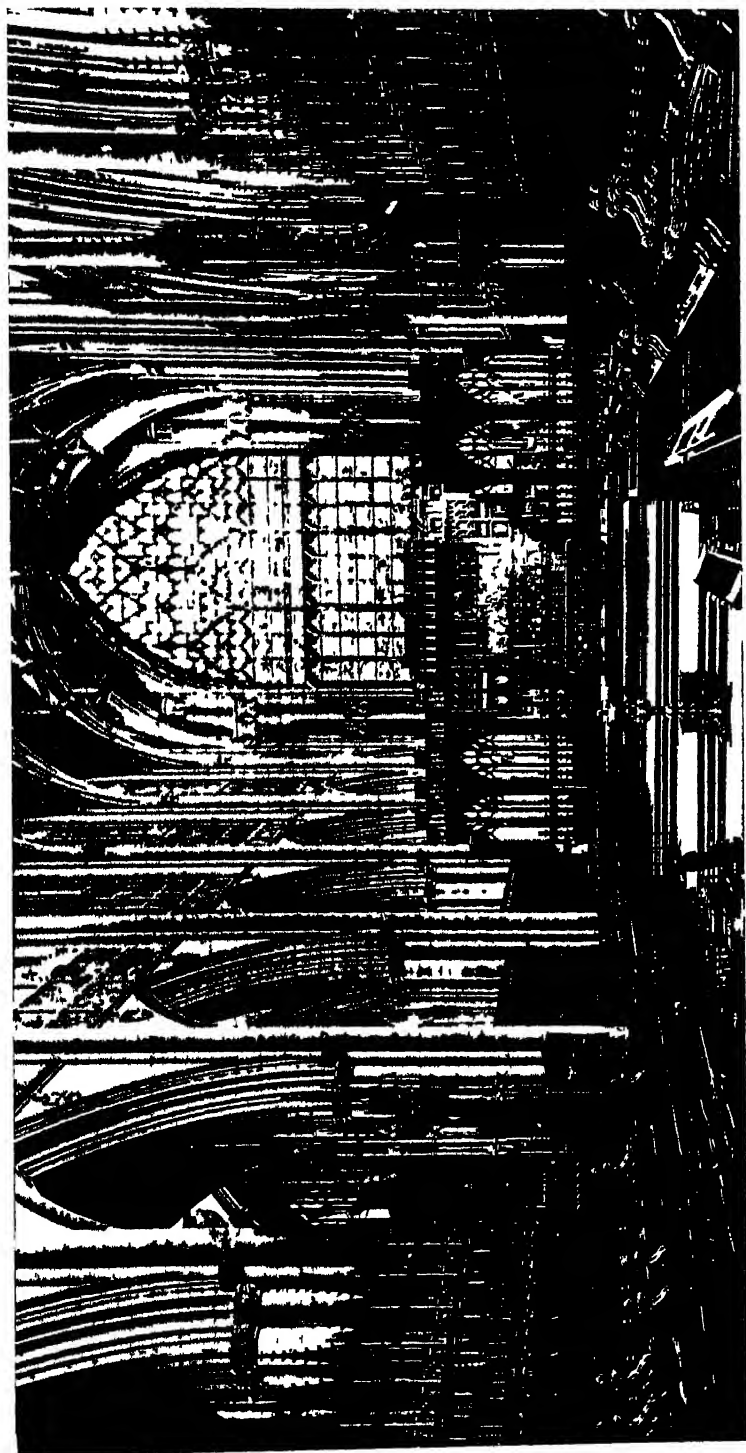


824.

The Five Sisters Window, York (From Britton.)

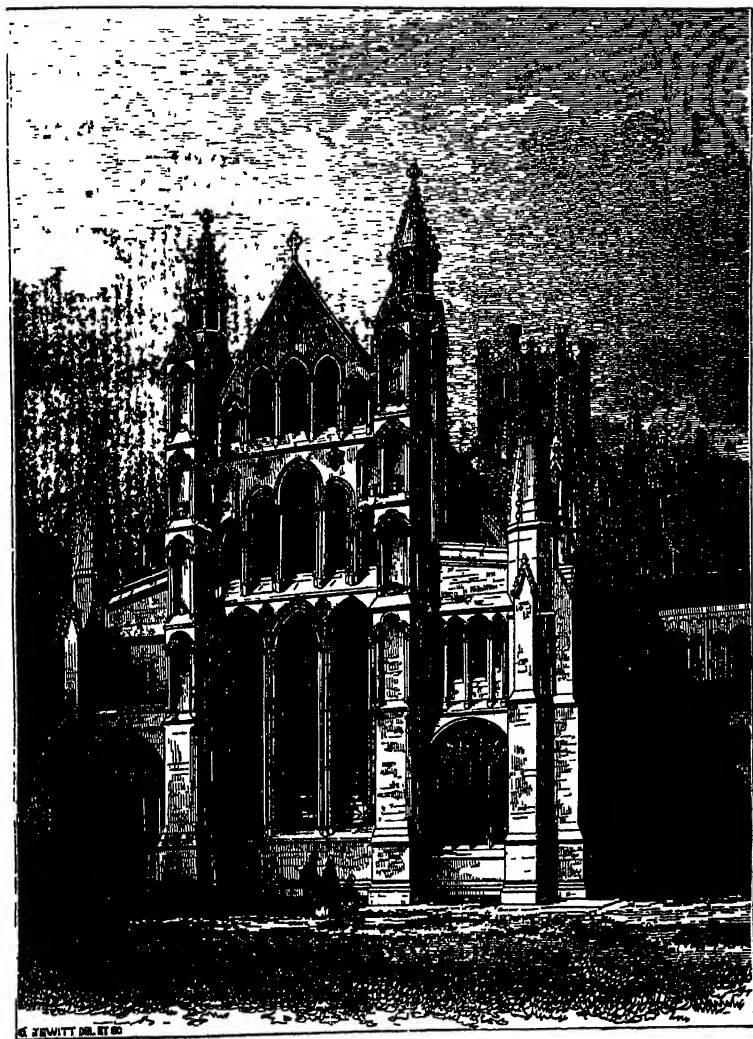
by the same sobriety which characterises all their works. They not only invented the lancet form of window, but what may be called the lancet style of fenestration. Nowhere on the Continent are such combinations to be found as the Five Sisters at York (Woodcut No. 824), or the east end of Ely (Woodcut No. 825), or such a group as that which terminates the east end of Hereford (Woodcut No. 826). Tracery it can hardly be called, but it is as essentially one design as any of the great east windows that afterwards came into fashion; and until painted glass became all-important, such an arrangement was constructively better than a screen of mullions, and as used in this country is capable of very beautiful combinations.

So, at least, the English architects of the 13th century seem to have thought, for they continued to practise their lancet style, as in the



INTERIOR OF YORK MINSTER

much-quoted example of Salisbury Cathedral, long after the French had perfected the geometric forms, which may be seen from the contemporary cathedral in Amiens. In France, as was pointed out in a previous chapter (p. 163 *et seq.*), we can trace every step by which



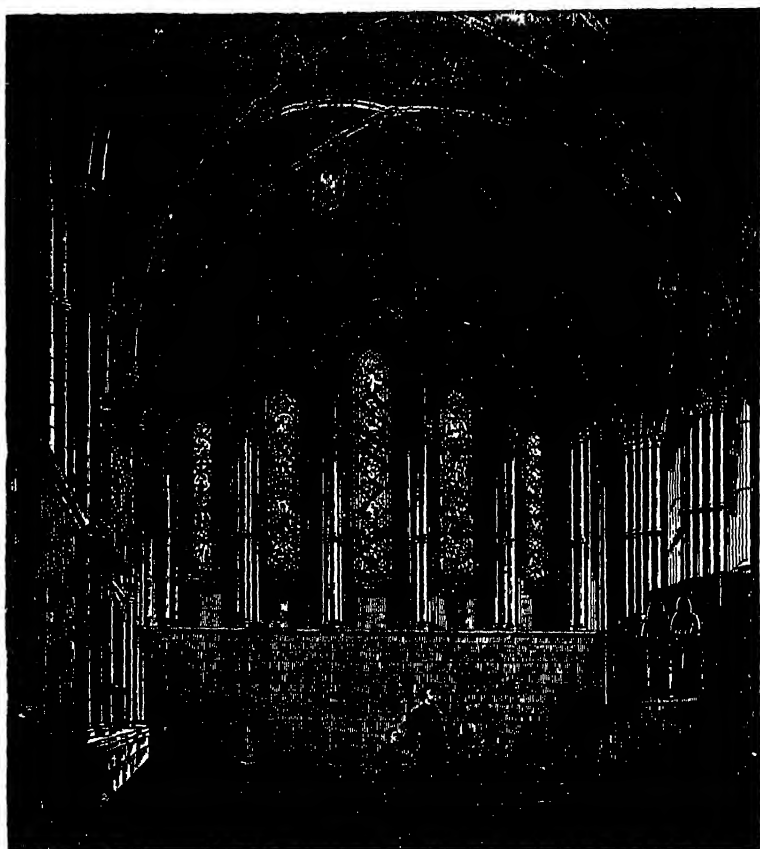
825.

Ely Cathedral, East End. (Cath. Hb.)

the geometric forms were invented. In England this cannot be done, and when we do find a rudimentary combination of two lancets with a circle, it is more frequently a harking back to previous forms than stepping forwards toward a new invention.

When, however, painted glass became an indispensable part of

church decoration, it was impossible to resist the influence of the French invention. Like many other Continental forms it seems first to have been systematically employed at Westminster, when the choir was rebuilt by Henry III., A D 1245-69, but even then it was used timidly and unscientifically as compared with the Sainte Chapelle at Paris, which was commenced 1244, and completed long before the English choir. Once, however, it was fairly introduced, the English architects



328.

Lancet Window, Hereford Cathedral. (Cath.Hb.)

employed it with great success. One of the earliest examples is the beautiful circular window of the north transept at Lincoln. It, however, is still of the imperfect tracery of the early French examples. The lines do not in all instances follow one another, and flat plain spaces are left, as in what is generally called plate tracery. True geometric tracery is, however, seen in perfection in the Angel Choir at Lincoln (1270-1282), in the nave of (York 1291-1330), or better, in such abbeys as Tintern or Gainsborough. In the chapter-house at York (Woodcut

No. 829) the style had already begun to deviate from the French pattern, and before the end of the 13th century the English had so thoroughly assimilated it that hardly a trace of its original form was left. The chapel at Merton College, Oxford, is perhaps the most beautiful example remaining of that exquisite form of English tracery; but St. Stephen's Chapel, Westminster, was the typical example, and specimens of it are found in all our cathedrals. One at St. Anselm's



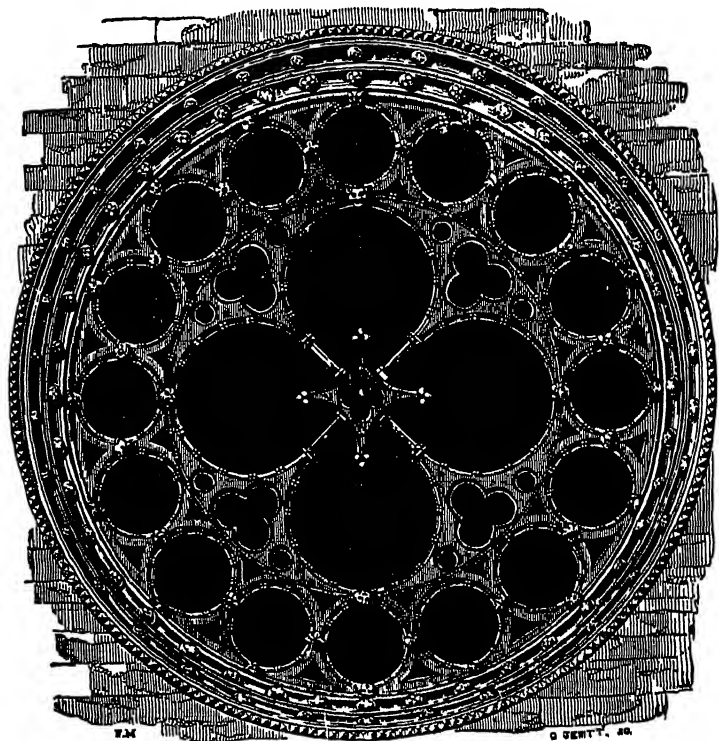
827

East End of Lincoln Cathedral. (From Wild's 'Lincoln'.)

Chapel at Canterbury (Woodcut No. 830) is perhaps as characteristic as any. When tracery had reached this stage, it seemed capable of any amount of development, and was applicable to any form of opening. All the difficulties of fitting circles into spherical triangles which had so puzzled the early builders were conquered,¹ and the range of design seemed unlimited. But during the Edwardian period there prevailed a restless desire for new inventions, and an amount of intellectual

¹ It is not necessary to repeat here what was said on the subject in speaking of French tracery, p. 164, to which the reader is referred.

activity applied to architecture which nothing could resist ; so that these beautiful geometric forms in their turn were forced to give way after being employed for little more than half a century, and were superseded by the fashion of flowing tracery, which lasted, however, for even a shorter period than the style which preceded it. This time the invention seems to have been English, for though we cannot feel quite certain when the first specimen of flowing tracery was introduced in France, the Flamboyant style was adopted by the French only after



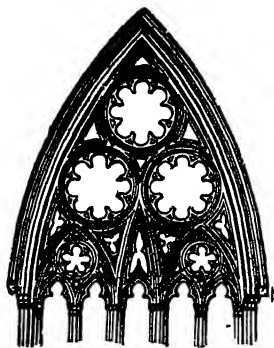
828.

North Transept Window, Lincoln Cathedral (Cath. Hb.)

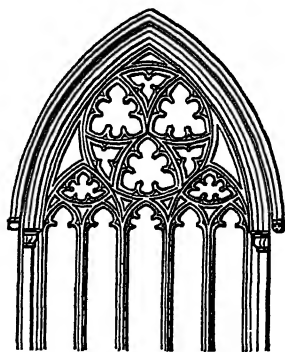
the English wars, whereas the Perpendicular style had superseded this and all other Decorated forms in England before the death of Edward III.

During the time that flowing forms were used in England they gave rise to some of the most beautiful creations in window tracery that are anywhere to be found. The east windows at Carlisle (Woodcut No. 831) and of Selby, are two of the finest examples, and illustrate the peculiarity of the style as adopted in this country. Though the forms are flowing, and consequently, as lithic forms, weak, the parts are so exquisitely balanced by the stronger ribs introduced and by the

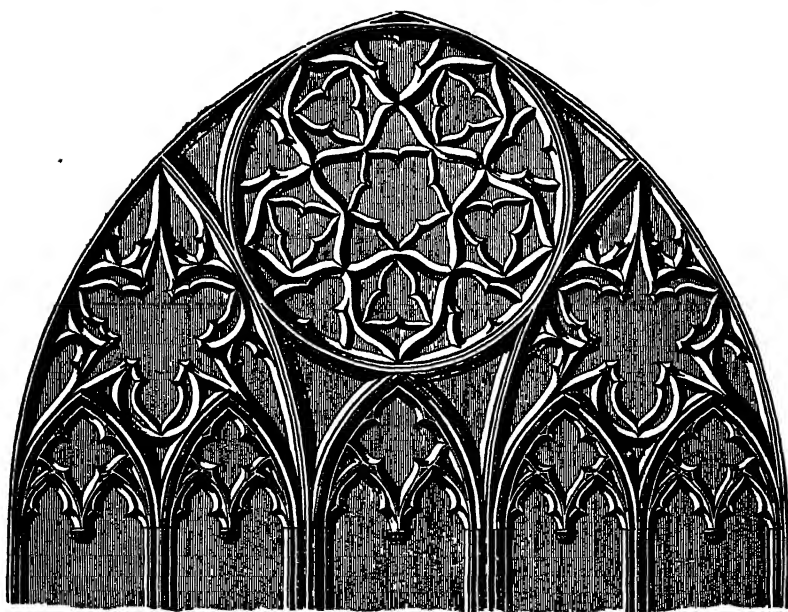
arrangement of the whole, that, so far from any weakness being felt, the whole is quite as stable as the purposes to which it is applied would seem to require. Another equally constructive and equally beautiful example is the south transept window at Lincoln (Woodcut



829 Window in Chapter-house at York.



English Geometric Tracery.



R. WILLIS, del.

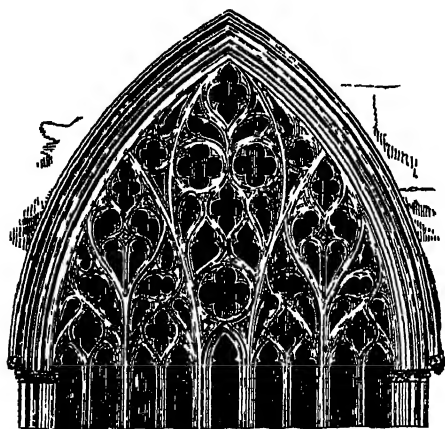
830

Window in St. Anselm's Chapel, Canterbury.

No. 832), where the segmental lines introduced give the strength required. Though almost all its lines are flowing, it looks stronger and more constructively correct than the north transept window (Woodcut No. 828), which is wholly made up of circular forms, and is in itself one of the best examples of the earlier form of English geometric tracery. Circular windows were not, however, the forte of

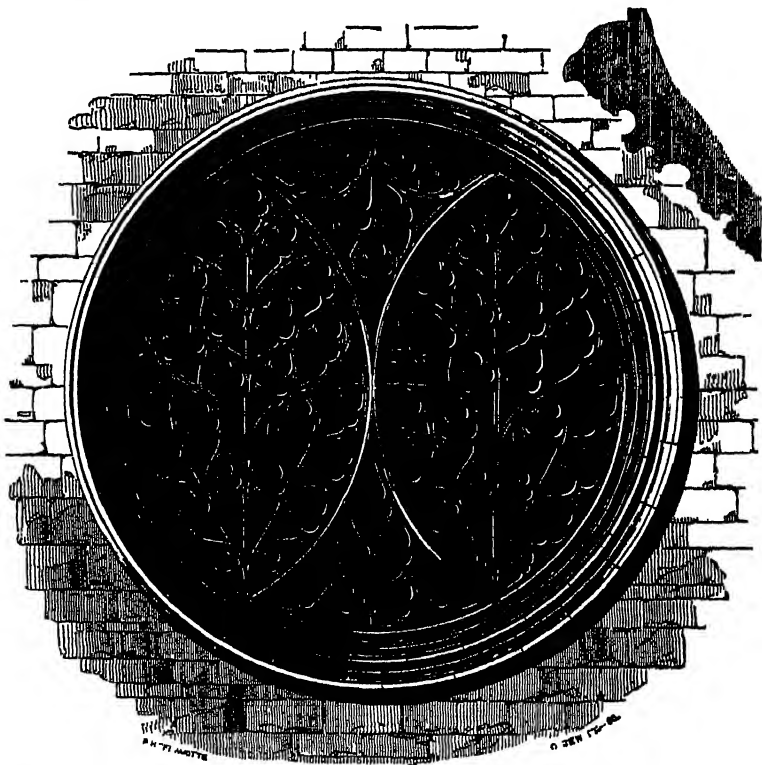
English architects, they very rarely used them in their west fronts, not always in their transepts, and generally indeed may be said to have preferred the ordinary pointed forms, in which, as in most matters, they probably exercised a wise discretion.

It may not be quite clear whether William of Wykeham (1366-1404) invented perpendicular tracery, but certain it is that the admiration excited by his works in this style at Winchester, Oxford, and elsewhere, gave a death-blow to the Decorated forms previously in fashion.



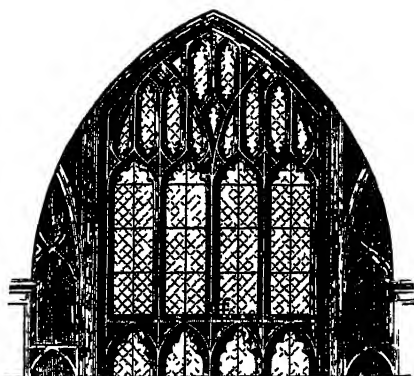
831 East Window, Carlisle Cathedral
(From a Drawing by R. W. Billings)

Although every lover of true art must regret the change, there was



a great deal to be said in favour of the new style. It was pre-eminently constructive and reasonable. Nothing in a masonic point of view could be better than the straight lines running through from bottom to top of the window, strengthened by transoms when requisite for support, and doubled in the upper division. The ornaments, too, were all appropriate, and, externally at least, the whole harmonised perfectly with the lines of the building. Internally, the architects were more studious to prepare forms suitable by their dimensions and arrangements for the display of painted glass, than to spend much thought on the form of the frames themselves.

The poetry of tracery was gone, but it was not only in this respect that we miss the poetic feeling of earlier days. The mason was gradually taking the guidance of the work out of the hands of the educated classes, and applying the square and the rule to replace the poetic inspirations of enthusiasts and the delicate imaginings by which they were expressed.



833 Perpendicular Tracery, Winchester Cathedral.

It is curious to observe how different the course of events was in France. While Saxon common sense was gradually coming to the surface in this country and curbing every fancy for which a good economic reason could not be given, the Celtic fancy of our neighbours broke loose in all the playful vagaries of the Flamboyant style. Their tracery became so delicate and so unconstructive that it is a wonder it ever stood, and no wonder that half the windows of that date are now without tracery at all. They were carved, too, with foliage so delicate that it ought to have been executed in metal and never attempted in stone—in wonderful contrast to the plain deep mouldings which surround most of our windows of that period.

EXTERNAL PROPORTIONS.

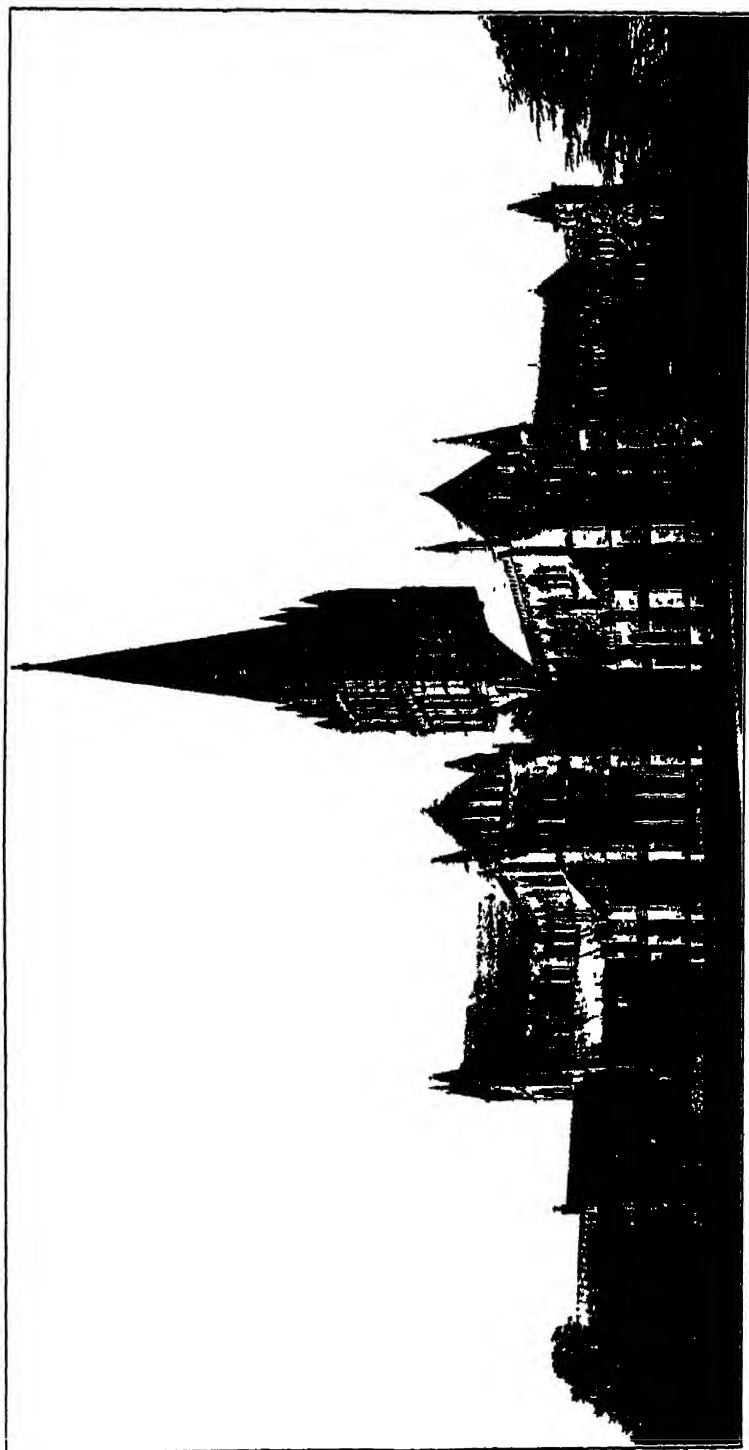
If the sobriety of proportion which characterised the design of English architects led to satisfactory results internally, its influence was still more favourable on the external appearance of their churches. An English cathedral is always a part of a group of buildings—the most important and most dignified part, it is true, but always coinciding and harmonising with its chapter-house, its cloister and

conventual buildings, its bishop's palace or abbot's lodging. In France the cathedral is generally like a giant among pigmies—nothing can exist in its neighbourhood. The town itself is dwarfed by the immense incubus that stands in its centre, and in almost no instance can the subordinate buildings be said to form part of the same design¹—both consequently suffering from their quasi-accidental juxtaposition.

This effect is even more apparent when we come to examine the sky-line of the buildings. Their moderate internal dimensions enabled the English architects to keep the roofs low, so as to give full effect to the height of the towers, and to project their transepts so boldly as to vary in perspective the long lines of the roofs from whatever point the building was viewed. Their greatest gain, however, was that they were able to place their tallest and most important feature in the centre of their buildings, and so to give a unity and harmony to the whole design which is generally wanting in Continental examples. One of the few cases in which this feature is successfully carried out in France is the church of St. Sernin at Toulouse (Woodcut No. 578), but there the body of the building is low and long like the English type, and a tower of the same height as those of the façade at Amiens suffices to give dignity to the whole. That church, however, wants the western towers to complete the composition. In this respect it is the reverse of what generally happens in French cathedrals, where the western façades are rich and beautifully proportioned in themselves, but too often overpowered by the building in the rear, and unsupported by any central object. In Germany they took their revenge, and in many instances kill the building to which they are attached. In England the group of three towers or spires—the typical arrangement of our architects—was always pleasing, and very frequently surpasses in grace and appropriateness anything to be found on the Continent. Even when, as at Norwich or at Chichester, the spire is unsupported by any western towers, the same effect of dignity is produced as at Toulouse; the design is pyramidal, and from whatever point it is viewed it is felt to be well balanced, which is seldom the case when the greatest elevation is at one end.

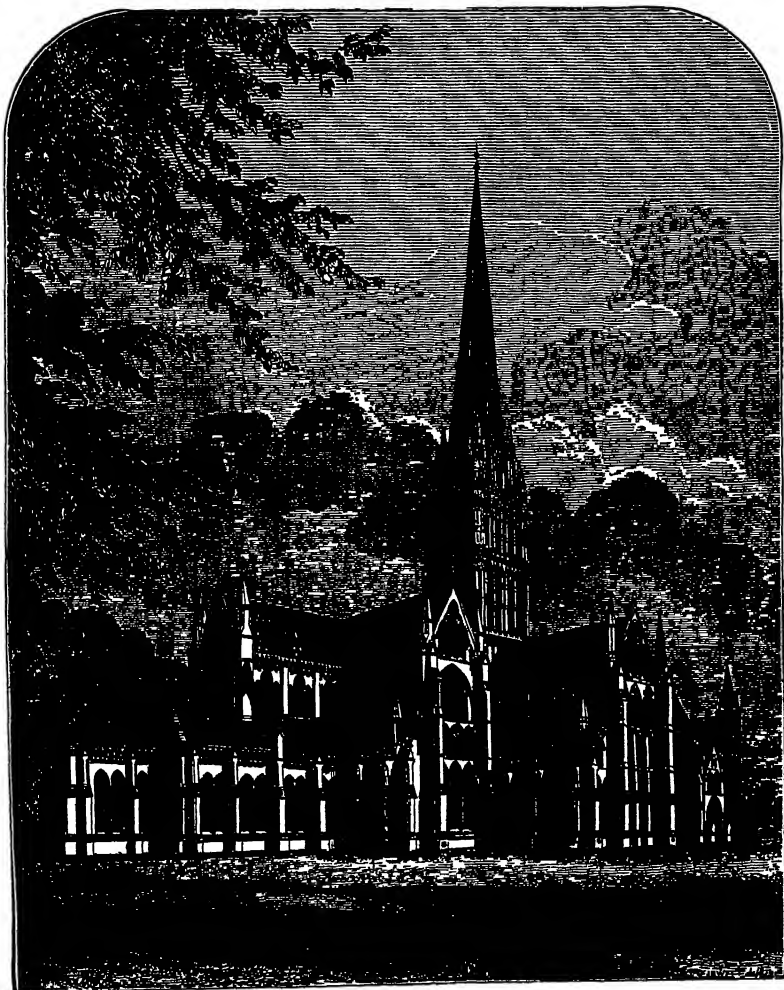
The cathedral at Salisbury (Woodcut No. 834), though, like the two last named, it has no western towers, still possesses so noble a spire in the centre, and two transepts so boldly projecting, that when viewed from any point east of the great transept it displays one of the best proportioned and at the same time most poetic designs of the Middle Ages. It is quite true that the spire is an afterthought of the 14th century, and that those who added it ought to have completed the design by erecting also two western towers, but, like St. Sernin's, it is

¹ This was not so much the case in Paris and Rouen, where the houses were carried up to a much greater height than in other towns.—Ed



SALISBURY CATHEDRAL

complete as it is, and very beautiful The *flèche* at Amiens is 20 ft. higher than the spire at Salisbury, being 424 ft. as against 404 ft. Yet the Salisbury spire is among the most imposing objects of which Gothic architecture can boast, the other an insignificant pinnacle that



834.

Salisbury Cathedral, from the N.E

hardly suffices to relieve the monotony of the roof on which it is placed.

Lichfield (Woodcut No. 835), though one of the smallest of English cathedrals, is one of the most pleasing from having all its three spires complete, and in the proportion originally designed for the building and for each other The height of the nave internally is only 58 ft., and of the roof externally only 80 ft.; yet with these diminutive

dimensions great dignity is obtained and great beauty of composition, certainly at less than one-fourth the expenditure in materials and money it would have cost to produce a like effect among the tall heavy-roofed cathedrals of the Continent.



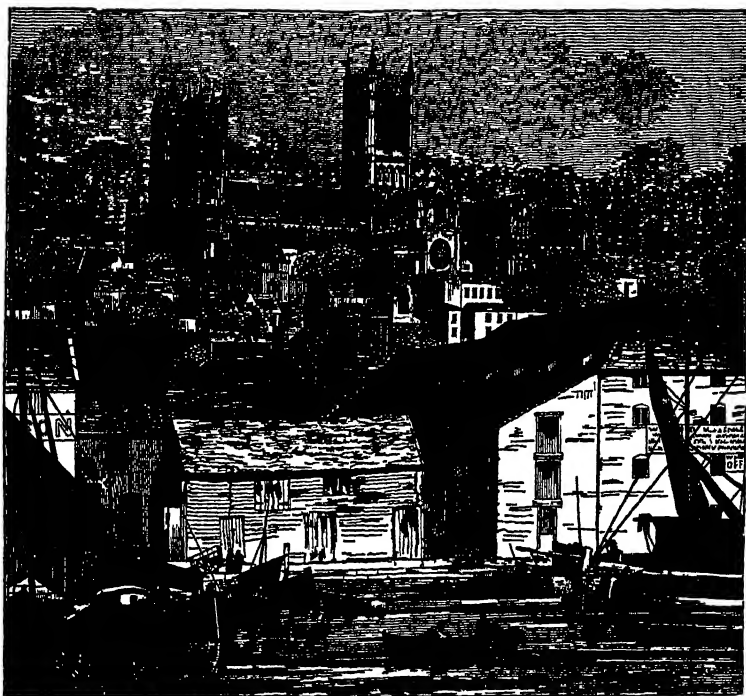
835

View of Lichfield Cathedral (From Britton's 'Cathedral Antiquities'.)

Had the octagon at Ely been completed externally,¹ even in wood, it would probably have been superior to the spire at Salisbury both in height and design. As before mentioned, it was left with only a

¹ A splendid chance of trying the effect of this occurred a few years ago, when it was determined to restore the lantern, as a memorial to Dr. Peacock. In a fit of purism, only the ugly temporary arrangement was made new. It looked venerable before the recent repairs; now that it is quite new again, it is most unpleasant.

temporary lantern externally, and, as was always the case in England, no drawing—no written specifications of the designer have been left. The masons on the Continent were careful to preserve the drawings of unfinished parts of the designs. The gentlemen architects of England seem to have trusted to inspiration to enable them to mould their forms into beauty as they proceeded. With true Gothic feeling they believed in progress, and it never occurred to them but that their successors would surpass them in their art, in the manner they felt they were excelling those who preceded them.



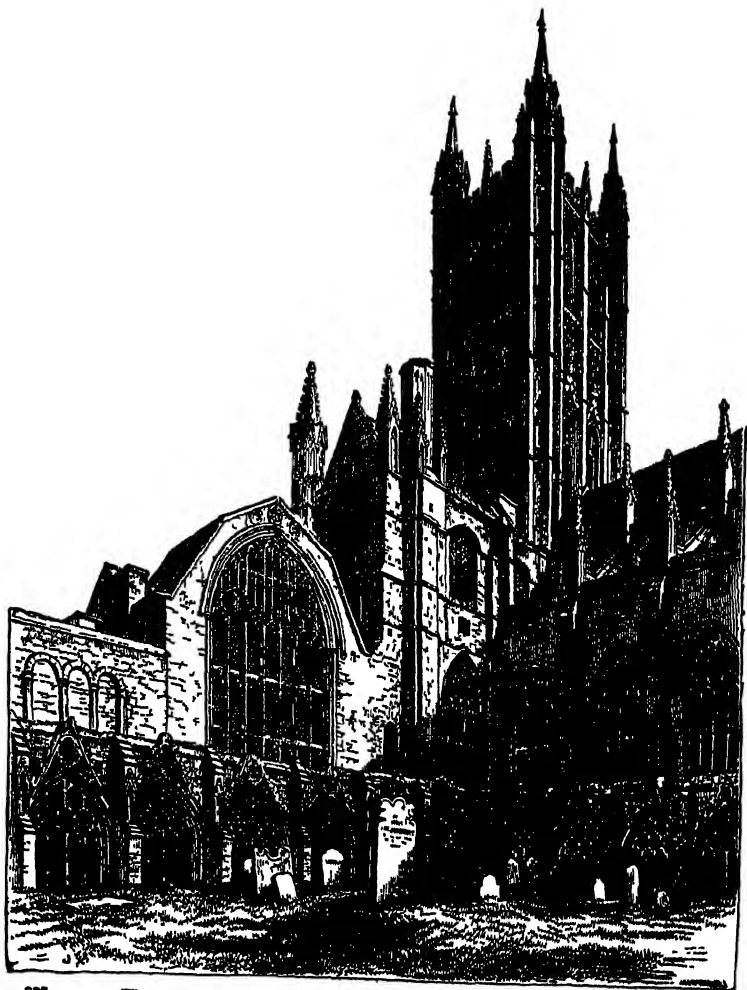
836

Lincoln Cathedral.

The three-towered cathedrals are not less beautiful and characteristic of England than those with three spires. Nothing can exceed the beauty of the outline of Lincoln¹ as it stands on its cliff looking over the Fens (Woodcut No. 836); though the erection of a screen in front of the western towers cuts them off from the ground, and so far mars their effect when seen close at hand. York perhaps possesses the best façade of the class in England, both as regards proportion and detail. The height of the towers to the top of the pinnacles is under

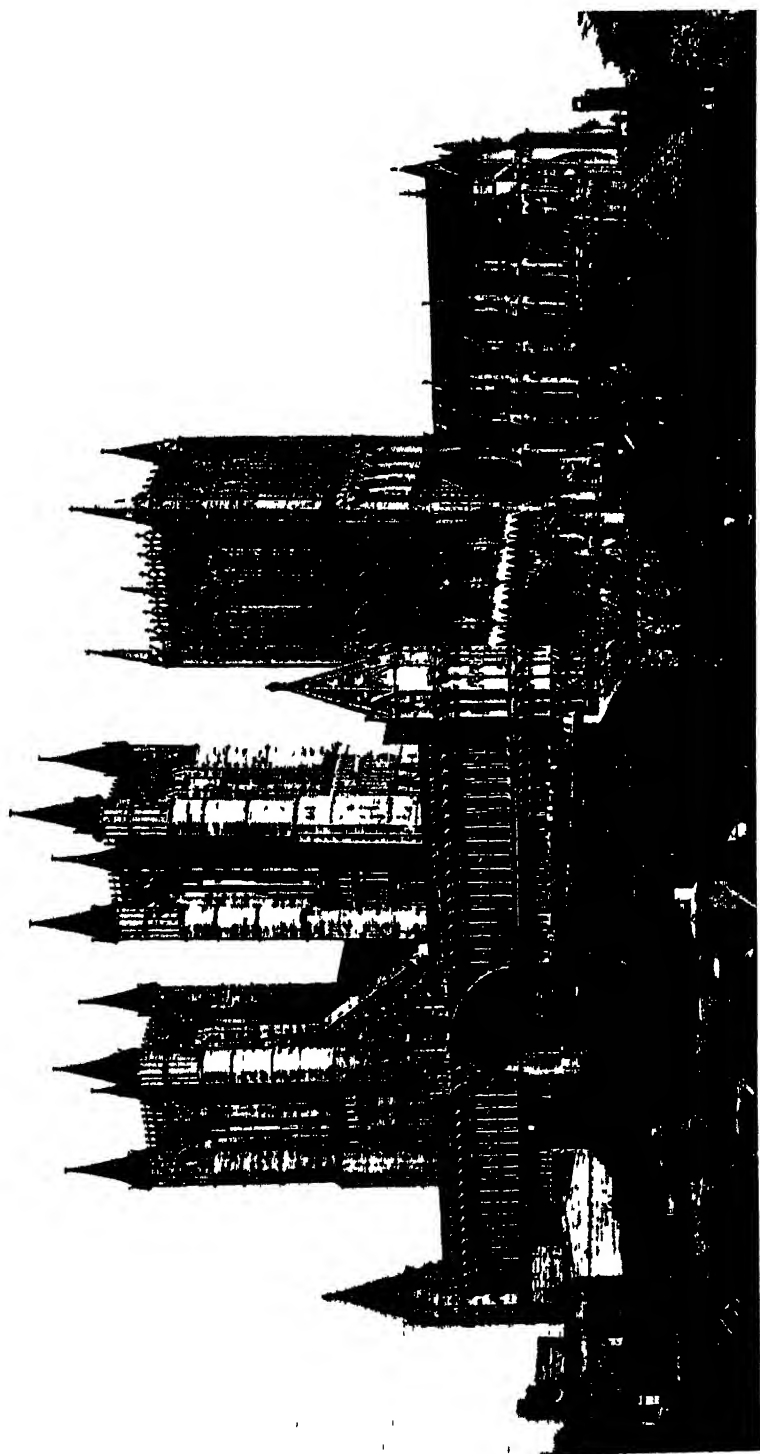
¹ The towers of Lincoln were surmounted by three spires, removed about 100 years ago.

two hundred feet (196), but this is quite sufficient for the nave they terminate, or the central tower with which they group. At Amiens the western towers are respectively 224 and 205 ft. in height, but they are utterly lost under the roof of the cathedral, and fail to give any dignity to the design.



337. View of the Angel Tower and Chapter-house, Canterbury. (Cath. Hb.)

For poetry of design and beauty of proportion, both in itself and in the building of which it forms a part, perhaps the Angel Tower at Canterbury is the best in England, and is superior to any of the same class of towers to be found elsewhere. It is difficult, however, among so many beautiful objects, to decide which is the best. The highest



LINCOLN CATHEDRAL

tower at Wells is only 165 ft. from the ground to the top of the pinnacle, yet it is quite sufficient for its position, and groups beautifully with the western towers. Though of different ages, the three towers at Durham group beautifully together, and the single tower at Gloucester crowns nobly the central point of that cathedral. But the same is true of all. The central tower or spire is the distinguishing feature of the external design of English cathedrals, and possessing it they in this respect surpass all their rivals.

The western façades of English cathedrals, on the contrary, are generally inferior to those on the Continent. We have none of those deeply recessed triple portals covered with sculpture which give such dignity and meaning to the façades of Paris, Amiens, Rheims, Chartres, and other French cathedrals. Beautiful as is the sculptured façade of Wells, its outline is hard, and its portals mean. Salisbury is worse. Winchester, Exeter, Canterbury, Gloucester, indeed most of our cathedrals, have mean western entrances, the principal mode of access to the building being a side door of the nave. Peterborough alone has a façade at once original and beautiful. Nothing but the portico of a classic temple can surpass the majesty of the three great arches of the façade of this church. The effect is a little marred by the fact that the central arch, which should have been the widest and have formed the chief entrance to the nave, is



839.

West Front of Peterborough Cathedral
(From Britton's 'Picturesque Antiquities')

narrower than the other two, and, further, is blocked up by a chapel built between the central piers. The great portal in fact does not agree, either, with the main lines of the church behind, and so far must be regarded only as a decorative front, but, take it all in all, it is one of the most beautiful inventions of the Middle Ages.

Such a screen would have been better had the arches been flanked by two more important towers than those which now adorn that façade, but unless the piers of the central tower were sufficient to carry a much

more important feature in the centre, the architects showed only their usual discretion in refusing to dwarf the rest of the cathedral by an exaggerated façade.

It may sound like the indulgence of national predilection to say so ; but it does seem that the English architects seized the true doctrine of proportion to a greater extent than their contemporaries on the Continent, and applied it more successfully. It will be easily understood that in so complicated and constructive a machine as a Gothic cathedral, unless every part is in proportion the whole will not unite. It is as if, in a watch or any delicate piece of machinery, one wheel or one part were made stronger or larger in proportion to all the rest. It may be quite true that it would be better if all were as strong or as large as this one part, but perfection in all the arts is attained only by balance and proportion. Whenever any one part gets too large for the rest the harmony is destroyed. This the English architects perfectly understood. They kept their cathedrals narrow, that they might appear long ; they kept them low, that they might not appear too narrow. They broke up the length with transepts, that it might not fatigue by monotony. Externally they kept their roofs low that with little expenditure they might obtain a varied and dignified sky-line, and they balanced every part against every other so as to get the greatest value out of each without interfering with the whole. A Gothic cathedral, however, is so complicated—there are so many parts and so many things to think of—that none can be said to be perfect. A pyramid may be so, or a tower, or a Greek temple, or any very simple form of building, whatever its size ; but a Gothic cathedral hardly can be made so—at least has not yet, though perhaps it might now be ; but in the meanwhile the English, considering the limited dimensions of their buildings, seem to have approached a perfect ideal more nearly than any other nation during the Middle Ages.

DIVERSITY OF STYLE.

There is still another consideration which must not be lost sight of in attempting to estimate the relative merit of Continental and English cathedrals, which is, the extraordinary diversity of style which generally prevails in the same building in this country as compared with those abroad. All the Great French cathedrals—such as Paris, Rheims, Chartres, Bourges, and Amiens—are singularly uniform throughout. Internally it requires a very keen perception of style to appreciate the difference, and externally the variations are generally in the towers, or in unessential adjuncts which hardly interfere with the general design. In this country we have scarcely a cathedral, except Salisbury, of which this can be said. It is true that Norwich is

tolerably uniform in plan and in the detail of its walls up to a certain height, but the whole of the vaulting is of the 15th century, and the windows are all filled with tracery of the same date. At Ely, a Norman nave leads up to the octagon and choir of the 14th century, and we then pass on to the presbytery of the 13th. At Canterbury and Winchester the anomalies are still greater; and at Gloucester, owing to the perpendicular tracery being spread over the Norman skeleton, they become absolutely bewildering.

In some, as Wells or York, it must be confessed the increase in richness from the western entrance to Lady Chapel is appropriate, and adds to the effect of the church more than if the whole were uniform throughout. This is particularly felt at Lincoln, where the simplicity of the early English nave and choir blossoms at last into the chaste beauty of the Angel Choir at the east end. It follows so immediately after the rest as not to produce any want of harmony, while it gives such a degree of enrichment as is suitable to the sanctity of the altar and the localities which surround it.

Even, however, when this is not the case, the historical interest attaching to these examples of the different ages of English architecture goes far to compensate for the want of architectural symmetry, and in this respect the English cathedrals excel all others. That history which on the Continent must be learnt from the examination of fifty different examples, may frequently be found in England written complete in a single cathedral. The difficulty is to discriminate how much of the feeling thus excited is due to Archæology, and how much to Architecture. In so far as the last-named art is concerned, it must probably be confessed that our churches do suffer from the various changes they have undergone, which, when architecture alone is considered, frequently turn the balance against them when compared with their Continental rivals.

SITUATION

Whatever conclusion may be arrived at with regard to some of the points mooted in the above section, there can be no doubt that in beauty of situation and pleasing arrangement of the entourage the English cathedrals surpass all others. On the Continent the cathedral is generally situated in the market-place, and frequently encumbered by shops and domestic buildings, not stuck up against it in barbarous times, but either contemporary, or generally at least Mediæval; and their great abbeys are frequently situated in towns, or in localities possessing no particular beauty of feature. In England this is seldom or never the case. The cathedral was always surrounded by a close of sufficient extent to afford a lawn of turf and a grove of trees.

Even in the worst times of Anne and the Georges, when men chiselled away the most exquisite Gothic canopies to set up wooden classical altar-screens, they spared the trees and cherished the grass; and it is to this that our cathedrals owe half their charm. There can be no greater mistake than to suppose that the architect's mission ceases with heaping stone on stone, or arranging interiors for convenience and effect. The situation is the first thing he should study; the arrangement of the accessories, though the last, is still amongst the most important of his duties.

Durham owes half its charm to its situation, and Lincoln much of its grandeur. Without its park the cathedral at Ely would lose much of its beauty; and Wells lying in its well wooded and watered vale, forms a picture which may challenge comparison with anything of its class. Even when situated in towns, as Canterbury, Winchester, or Gloucester, a sufficient space is left for a little greenery and to keep off the hum and movement of the busy world. York, among our great cathedrals is about the most unfortunate in this respect, and suffers accordingly. But in order to appreciate how essentially the love of Nature mingled with the taste for architectural beauty during the Middle Ages, it is necessary to visit some of the ruined abbeys whose remains still sanctify the green valleys or the banks of placid streams in every corner of England.

Even if it should be decided that in some respects the architects of England must yield the palm to those of the Continent as regards the mechanical perfection of their designs, it must at least be conceded, that in combining the beauties of Art with those of Nature they were unrivalled. Their buildings are always well fitted to the position in which they are placed. The subsidiary edifices are always properly subordinated, never too crowded nor too widely spaced, and always allowing when possible for a considerable admixture of natural objects. Too frequently in modern times—even in England—this has been neglected; but it is one of the most important functions of the architect, and the means by which in many instances most agreeable effects have been produced.

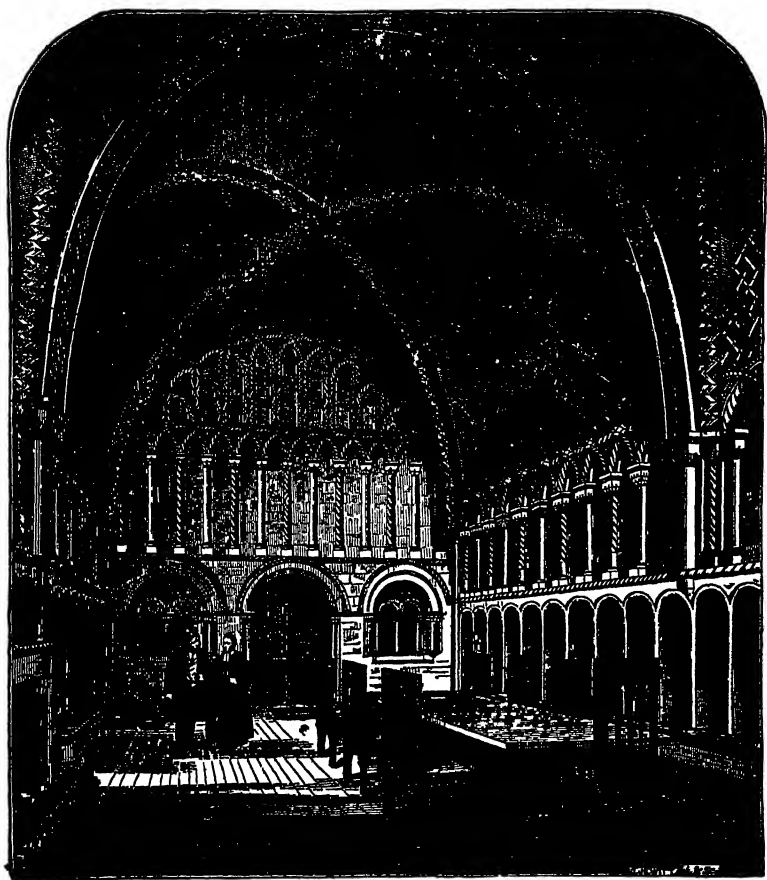
CHAPTER-HOUSES.

The chapter-house is too important and too beautiful an adjunct to be passed over in any sketch, however slight, of English architecture. It also is almost exclusively national. There are, it is true, some "*Salles Capitulaires*" attached to Continental cathedrals or conventual establishments, but they are little more than large vestry-rooms, with none of that dignity or special ordinance that belongs to the English examples. One cause of the small importance attached to this feature on the Continent was that, in the original basilica, the apse was the



WINCHESTER CATHEDRAL

assembly-place, where the bishop sat in the centre of his clergy and regulated the affairs of the church. In Italy this arrangement continued till late in the Middle Ages. In France it never seems to have had any real existence, though figuratively it always prevailed. In England we find the Bishop's throne still existing in the choir at Norwich; and at Canterbury, and doubtless in all the apsidal Norman cathedrals, this form of consistory originally existed. Such an arrange-

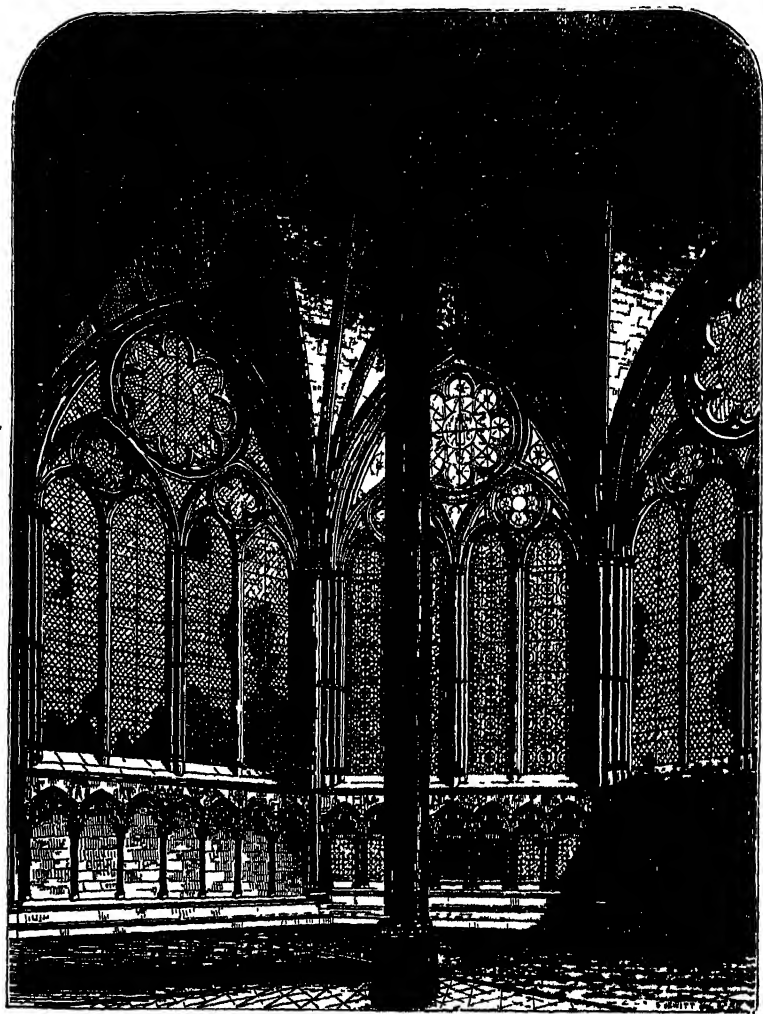


Chapter-House, Bristol (Cath. Hb.)

ment was well suited for the delivery of an allocution or pastoral address by the bishop to his clergy, and was all that was required in a despotic hierarchy like the French Church; but it was by no means in accordance with the Anglo-Saxon idea of a deliberate assembly which should discuss every question as a necessary preliminary to its being promulgated as a law.

In consequence of this, we find in England chapter-houses attached to cathedrals even in early Norman times. These were generally rect-

angular rooms, 25 or 30ft wide by about twice that extent in length. We can still trace their form at Canterbury and Winchester. They exist at Gloucester and Bristol and elsewhere. So convenient and appropriate does this original form appear, that it is difficult to understand why it was abandoned, unless it was that the resonance was

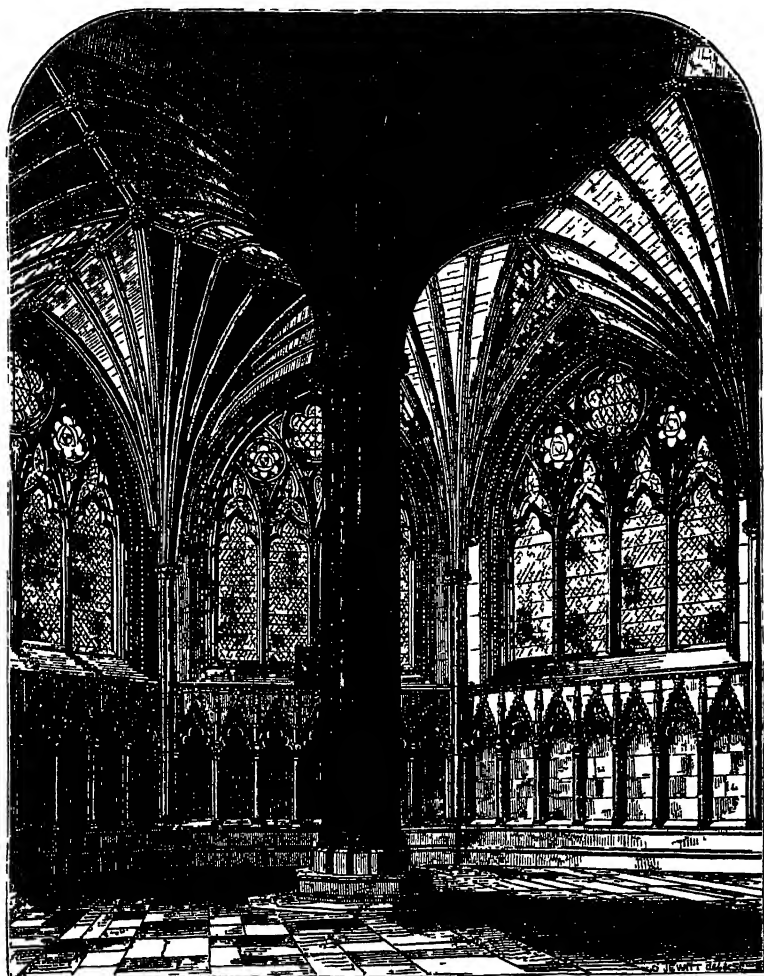


840.

Chapter-House, Salisbury. (Cath. Hb.)

intolerable. The earliest innovation seems to have been at Durham, where, in 1133, a chapter-house was commenced with its inner end semicircular; but shortly after this, at Worcester, a circular chamber with a central pillar was erected, and the design was so much approved of, that it became the typical form of the English chapter-

house ever afterwards. Next, apparently, in date came Lincoln, and shortly afterwards the two beautiful edifices at Westminster and Salisbury. The former, commenced about the year 1250, became, without any apparent incongruity, the parliament-house of the nation,



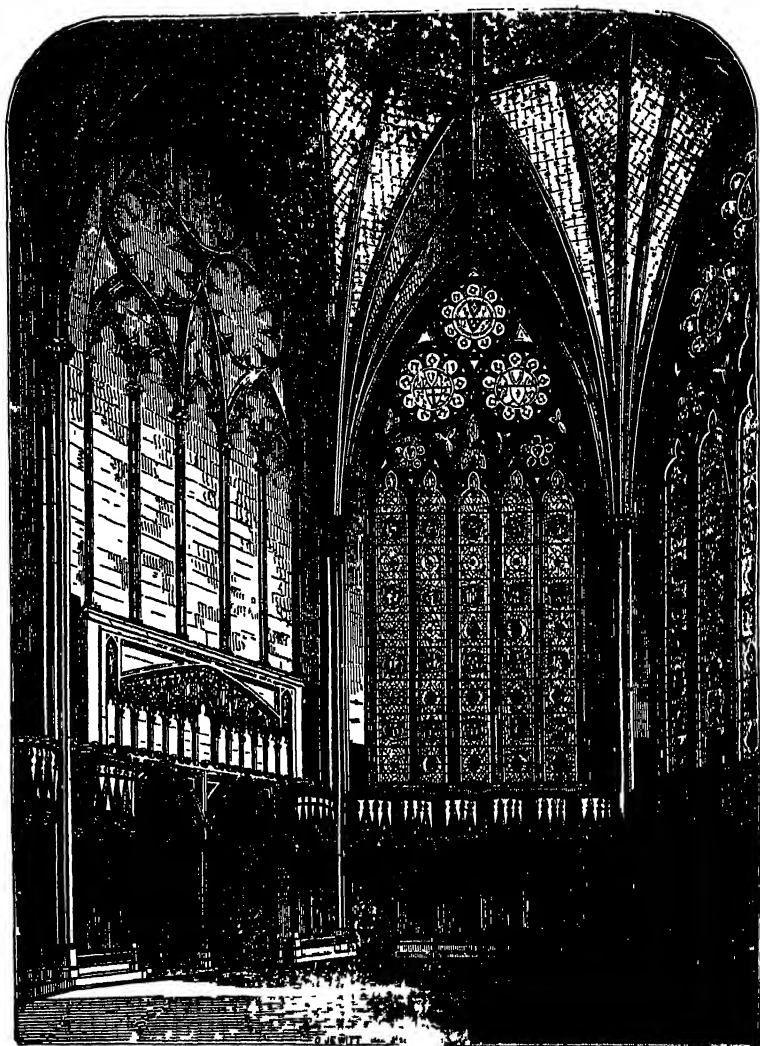
841.

Chapter-House, Wells (Cath Hb)

instead of the council-chamber of a monastic establishment ; and all the parliaments of the kingdom were held within its walls till the dissolution of the religious orders placed the more convenient rectangular chapel of St. Stephen at their disposal. Now that it has been restored, we are enabled to judge of the beauty of its proportions ; and, from the remains of paintings which have been so wonderfully preserved, of the beauty of the art with which it was once decorated.

It only wants coloured glass in its windows to enable us to realise the beauty of these truly English edifices

That at Bristol is late in the style (1155-1170), and consequently

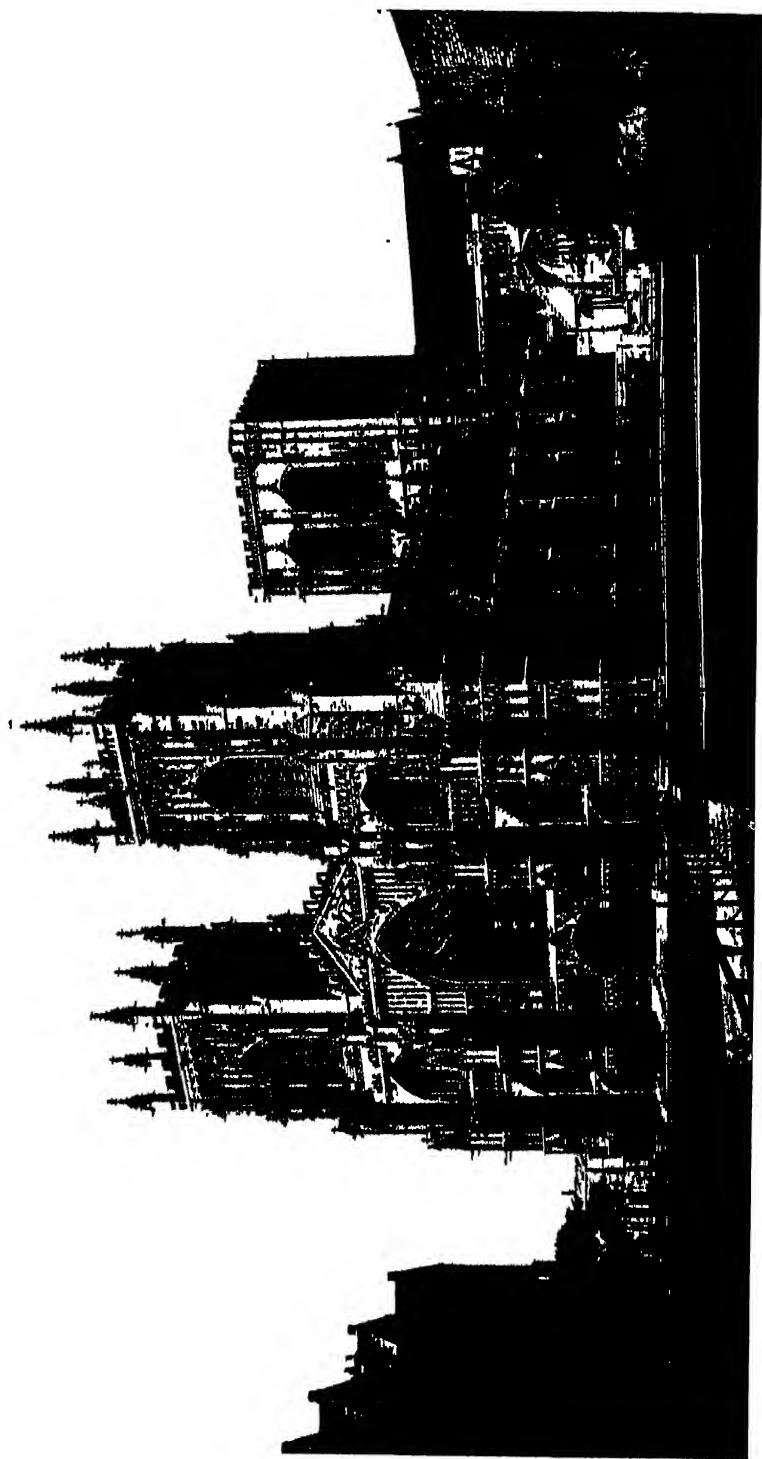


842.

Chapter-House, York (Cath. Hb.)

almost approaches the transitional epoch, but is very rich and beautiful. The eastern end has been unfortunately pulled down and rebuilt, but the western end, shown in the annexed Woodcut (No. 839), is one of the richest and best specimens of late Norman work to be found anywhere.

But, having once got rid of the central pillar, which was the great defect of their construction as halls of assembly, they would hardly have



YORK MINSTER

reverted to it again, and a true Gothic dome might have been the result had the style been continued long enough to admit of its being perfected.

Salisbury chapter-house (Woodcut No. 840) was erected shortly afterwards, and, though its original beauties have been to a great extent washed out by modern restorations, it still affords a very perfect type of an English chapter-house of the 13th century, at a time when the French geometric tracery was most in vogue. That at Wells (1293-1302, Woodcut No. 841), however, is more beautiful and more essentially English in all its details. The tracery of the windows, the stalls below them, and the ornaments of the roof, are all of that perfect type which prevailed in this country about the year 1300. Its central pillar may perhaps be considered a little too massive for the utilitarian purpose of the building, but as an architectural feature its proportions are perfect. Still the existence of the pillar was a defect that it was thought expedient to remove, if possible, and it was at last accomplished in the chapter-house at York, the most perfect example of the class existing, as its boasting inscription testifies,—

“ Ut Rosa flos florem,
Sic Domus ista Donorum.”

Like all the rest of them, its diameter is 57 or 58 ft—as has been suggested, an octagon inscribed in a circle of 60 ft. diameter. In this instance alone has a perfect Gothic dome been accomplished. It is 12 ft. less in diameter than the lantern at Ely, and much less in height; but it is extremely beautiful both in design and detail, and makes us regret more and more that, having gone so far, the Gothic architects did not follow out this invention to its legitimate conclusion.

By the time, however, that York chapter-house was complete, all the great cathedrals and monastic establishments had been provided with this indispensable adjunct to their ecclesiastical arrangements, and none were erected either in the Lancastrian or Tudor periods of the art, so that we can hardly guess what might have been done had a monastic parliament-house been attempted at a later date.¹

CHAPELS.²

Although not so strictly peculiar, the forms of English chapels were so original and offer so many points of interest that they are well worthy of study.

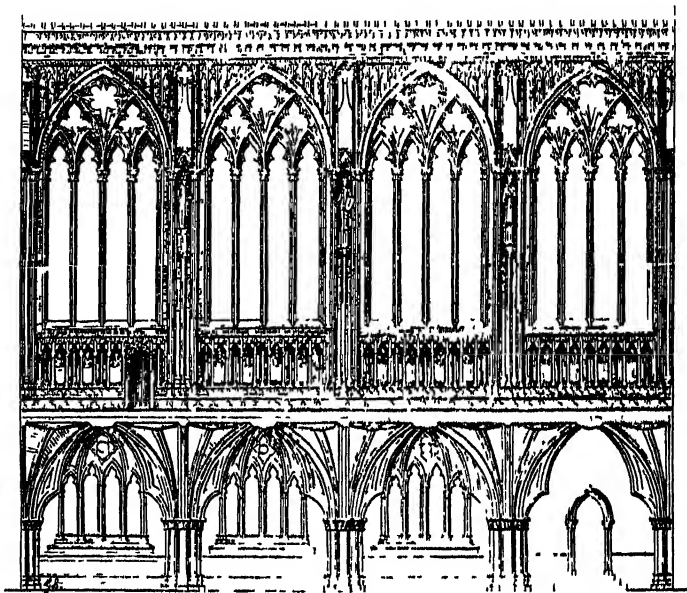
With the exception of the chapel in the White Tower there is

¹ The central octagon of the Parliament Houses is 65 ft in diameter, and is the best specimen of a modern Gothic dome which has been attempted.

² A chapel, properly speaking, is a hall designed for worship, without any separa-

tion between classes. A church has a chancel for the clergy, a nave for the laity. A cathedral has these and attached chapels and numerous adjuncts which do not properly belong to either of the other two.

perhaps no example of a Norman Chapel now existing, unless the remains of the infirmary chapels at Canterbury and Ely may be considered as such. The practice of erecting them seems to have risen with our educational colleges, where all those present took part in the service, and the public were practically excluded. One of the finest and earliest of these is that of Merton College, Oxford. It has, and was always designed to have, a wooden roof, but of what



843.

Internal Elevation in St. Stephen's Chapel, Westminster.

fashion is not quite clear, except that it certainly could never have been like the one now existing.

The typical specimen of that age, however, was the royal chapel of St. Stephen at Westminster, which, from what remained of it till after the Great Fire, we know must have been the most exquisitely beautiful specimen of English art left us by the Middle Ages.¹

It was 92 ft. long by 33 ft. wide internally, and 42 ft. high to the

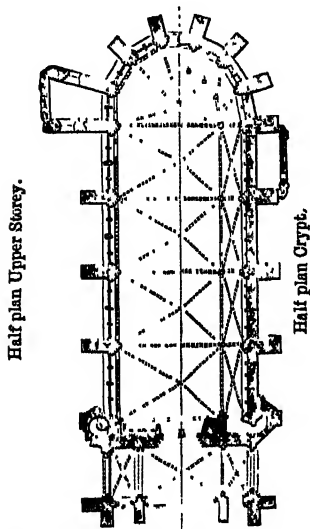
¹ Few things of its class are more to be regretted than the destruction of this beautiful relic in rebuilding the Parliament Houses. It would have been cheaper to restore it, and infinitely more beautiful when restored than the present gallery which takes its place. It is sad, too, to think that nothing has been done to reproduce its beauties. When the colleges of Exeter at Oxford, or St John's, Cam-

bridge, were rebuilding their chapels, it would have been infinitely better to reproduce this exquisite specimen of English art than the models of French chapels which have been adopted.

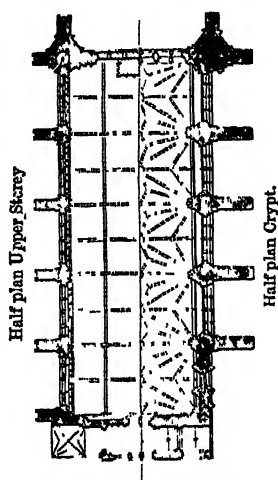
The work on St. Stephen's Chapel, published for the Woods and Forests by Mr. Mackenzie, is rendered useless by the addition of an upper storey which never existed.

springing of the roof This was of wood, supported by hammer-beam trusses similar to, but evidently more delicate in design and more elegantly carved than those of Westminster Hall, which were apparently copied from those of the chapel The proportions were beautiful, but the greatest charm was in its details, which were carried out evidently by the best artists, and with all the care that was required in the principal residence of the sovereign.

Though nearly a century later in date,¹ St Stephen's Chapel is so nearly a counterpart of the royal chapel of Paris—"the Sainte Chapelle"—that it may be worth while to pause a second to compare the two In dimensions, on plan, they are not dissimilar, both are



844. Plan of Ste. Chapelle, Paris
Scale 60 ft to 1 in.



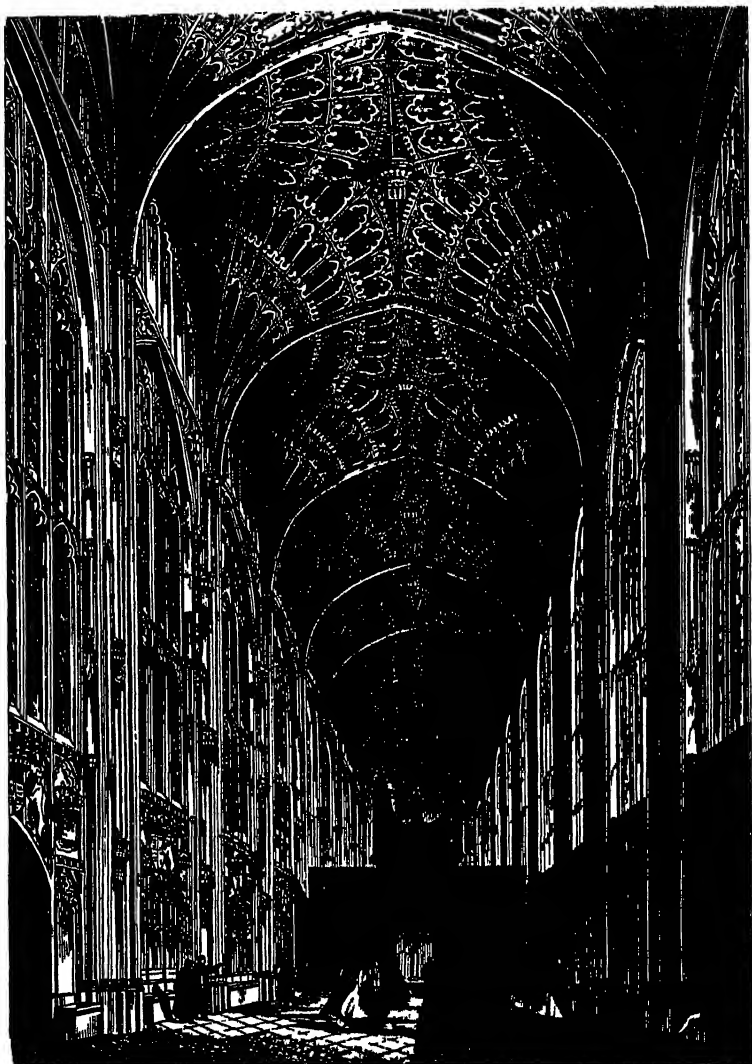
845. Plan of St. Stephen's, Westminster.
Scale 60 ft. to 1 in.

raised on an under-croft or crypt of great beauty. The French example has the usual apsidal termination, the English the equally characteristic square east end. The French roof is higher and vaulted; the English was lower and of wood. It is impossible to deny that the French chapel is very beautiful, and only wants increased dimensions to merit the title of a sublime specimen of Gothic art; but the English example was far more elegant. All the parts are better balanced, and altogether it was a far more satisfactory example than its more ambitious rival, of the highest qualities to which the art of the Middle Ages could attain.

We have an excellent means of ascertaining how far St. Stephen's Chapel would have been damaged by a vaulted roof, by comparing it

¹ The Sainte Chapelle was commenced | St Stephen's were commenced apparently
1244, and finished 1248. The works of | 1292, but were not finished till 1348.

with the nearly contemporary chapel at Ely (1321-1349), erected under the superintendence of the same Alan de Walsingham who designed the octagon of the church. Its internal dimensions are 100 ft. long by 43 wide, and sixty high. The details of the screen of niches



which form a dado round the whole chapel are perhaps, without exception, the most exquisite specimens of decorative carving that survive from the Middle Ages. The details of the side windows are also good, but the end windows are bad in design, and neither externally nor internally fit the spaces in which they are placed. With painted glass

this might be remedied, internally at least, but the whole design is thrown out of harmony by its stone roof. As a vault its width is too great for its length, the height insufficient for its other dimensions, and altogether, though its details are beyond all praise, it leaves a more unsatisfactory impression on the mind than almost any other building of its class

King's College Chapel at Cambridge (1479-1515) errs in exactly the opposite direction. It is too long for its width, but has height sufficient to redeem the length, though at the expense of exaggerating its narrowness. These, however are all errors in the direction of sublimity of effect, and though greater balance would have been more satisfactory, the chapel is internally so beautiful that it is impossible not to overlook them. It is more sublime than the Saint Chapelle, though, from its late age, wanting the beauty of detail of that building.

Henry VII's Chapel, Westminster (1502-1515), differs from all previous examples, in having side-aisles with chapels at the east end and a clerestory. Its proportions are not, however, pleasing, but it makes up in richness of detail for any defects of design.

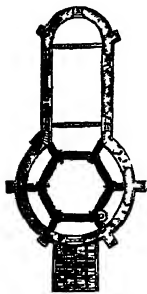
Of the three royal chapels, that at Windsor (1475-1521) is perhaps on the whole the most satisfactory. Being a chapel it has no western or central towers to break its sky-line and give it external dignity; but internally it is a small cathedral, and notwithstanding the lateness of some of its details (part of the vault was finished in the reign of Henry VIII.), is so elegant and so appropriate in every part as to be certainly one of the most beautiful Gothic buildings in existence, for its size, perhaps the most beautiful. Considering that these three last-named chapels were being erected contemporaneously with St. Peter's at Rome, it is wonderful how little trace of classic feeling they betray; and how completely not only Gothic details but true Gothic feeling still prevailed in this country almost up to the outbreak of the Reformation.

PARISH CHURCHES.

Were it possible in a work like this to attempt anything approaching an exhaustive enumeration of the various objects of interest produced during the Middle Ages, it would be impossible to escape a very long chapter on the parish churches of England. They are not so magnificent as her cathedrals, nor so rich as her chapels; but for beauty of detail and appropriateness of design they are unsurpassed by either, while on the Continent there is nothing to compare with them. The parochial system seems to have been more firmly rooted in the affection of the people of this country than of any other. Especially in the 14th and 15th centuries the parishioners took great

pride in their churches, and those then erected are consequently more numerous as well as more ornamental than at any other time.

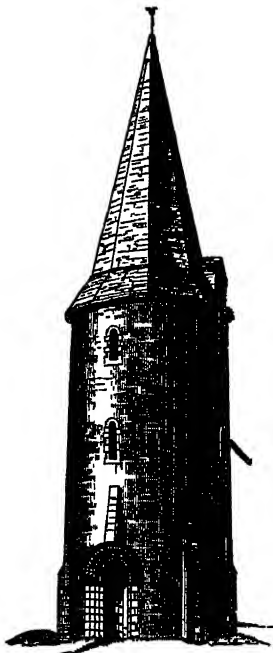
Strange to say, considering how common the circular form was in



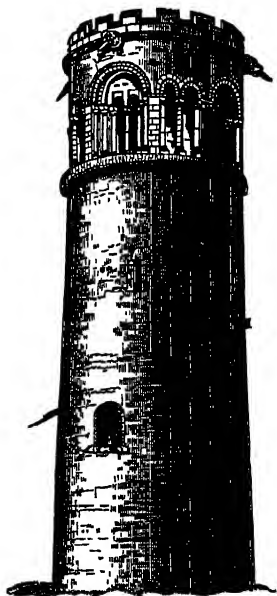
847 Plan of Circular Church at Little Maplestead Scale 50 ft. to 1 in

the countries from which our forefathers are said to have emigrated, it never took root in England. The round churches at Cambridge, Northampton, and London, were certainly sepulchral, or erected in imitation of the church at Jerusalem. The one known example of a village church with a circular nave is that at Little Maplestead, in Essex. It is of the pure German or Scandinavian type¹—a little St Gereon, standing alone in this form in England; but a curious modification of it occurs in the eastern counties, in which this church is situated, which points very distinctly to the origin of a great deal of the architecture of that country. There are in Norfolk and

Suffolk some forty or fifty churches with round Western towers, which



848. Spire of Great Leighs Church, Essex



849 Tower of Little Saxham Church, Suffolk

seem undoubtedly to be mere modifications of the western round nave of the Scandinavian churches. At page 331, Laderbro Church (Woodcut No. 795) was pointed out as an example of a circular nave attenuated

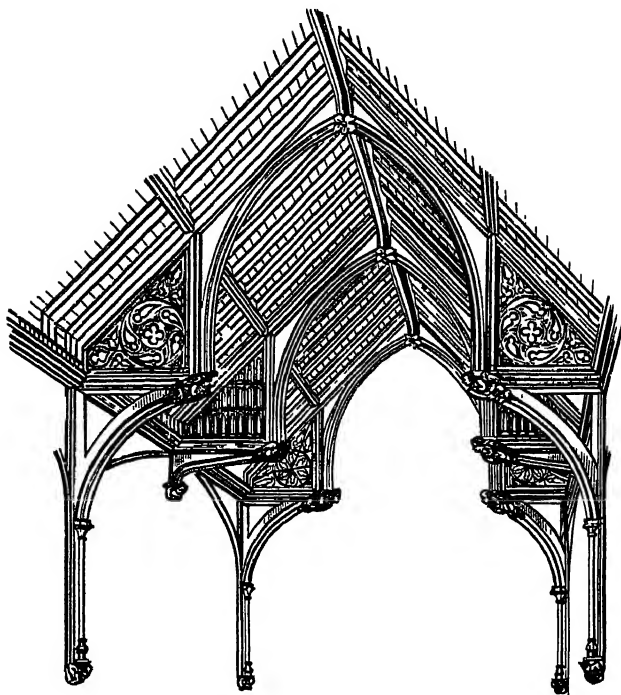
¹ *Vide ante*, p. 264, and p. 328.

into a steeple, and there are no doubt many others of the same class in Scandinavia. It was, however, in England, where rectangular naves were common, that the compromise found in this country became fashionable. These Norfolk churches with round towers may consequently be looked upon as safe indexes of the existence of Scandinavian influences in the eastern counties, and also as interesting examples of the mode in which a compromise is frequently hit upon between the feelings of intrusive races and the habits of the previous inhabitants.

It is doubtful whether round-naved and round-towered churches existed in the eastern counties anterior to the Norman Conquest; so far as we know, none have been described. The earliest that are known were erected during the Norman period, and extend certainly down to the end of the Edwardian period. Some of the towers have perpendicular details, but these seem insertions, and consequently do not indicate the date of the essential parts of the structure.

As a rule, the English parish church is never vaulted, that species of magnificence being reserved, after the Norman times at least, for cathedrals and collegiate churches, but on the other hand, their wooden roofs are always appropriate, and frequently of great beauty. So essential does the vault appear to have been to Gothic architecture both abroad and in this country, that it is at first sight difficult to admit that any other form of covering can be as beautiful. But some of the roofs in English churches go far to refute the idea. Even, however, if they are not in themselves so monumental and so grand, they had at least this advantage, that the absence of the vault allowed the architect to play with the construction of the substructure. He was enabled to lighten the pillars of the nave to any extent he thought consistent with dignity, and to glaze his clerestory in a manner which must have given extreme brilliancy to the interior when the whole was filled with painted glass. Generally with a wooden roof there were two windows in the clerestory for one in the aisles: with a vaulted roof the tendency was the other way. Had they dared, they would have put one above for two below. But the great merit of a wooden roof was, that it enabled the architect to dispense with all flying buttresses, exaggerated pinnacles, and mechanical expedients, which were necessary to support a vault, but which often sadly hampered and crowded his designs.

So various were the forms these wooden roofs took that they almost defy classification. The earlier and best type was a reminiscence, rather than an imitation, of the roof of St. Stephen's Chapel or Westminster Hall, but seldom so deeply framed. That at Trunch Church, Norfolk (Woodcut No. 850), may be taken as a fair average specimen of the form adopted for the larger spans, and that at New

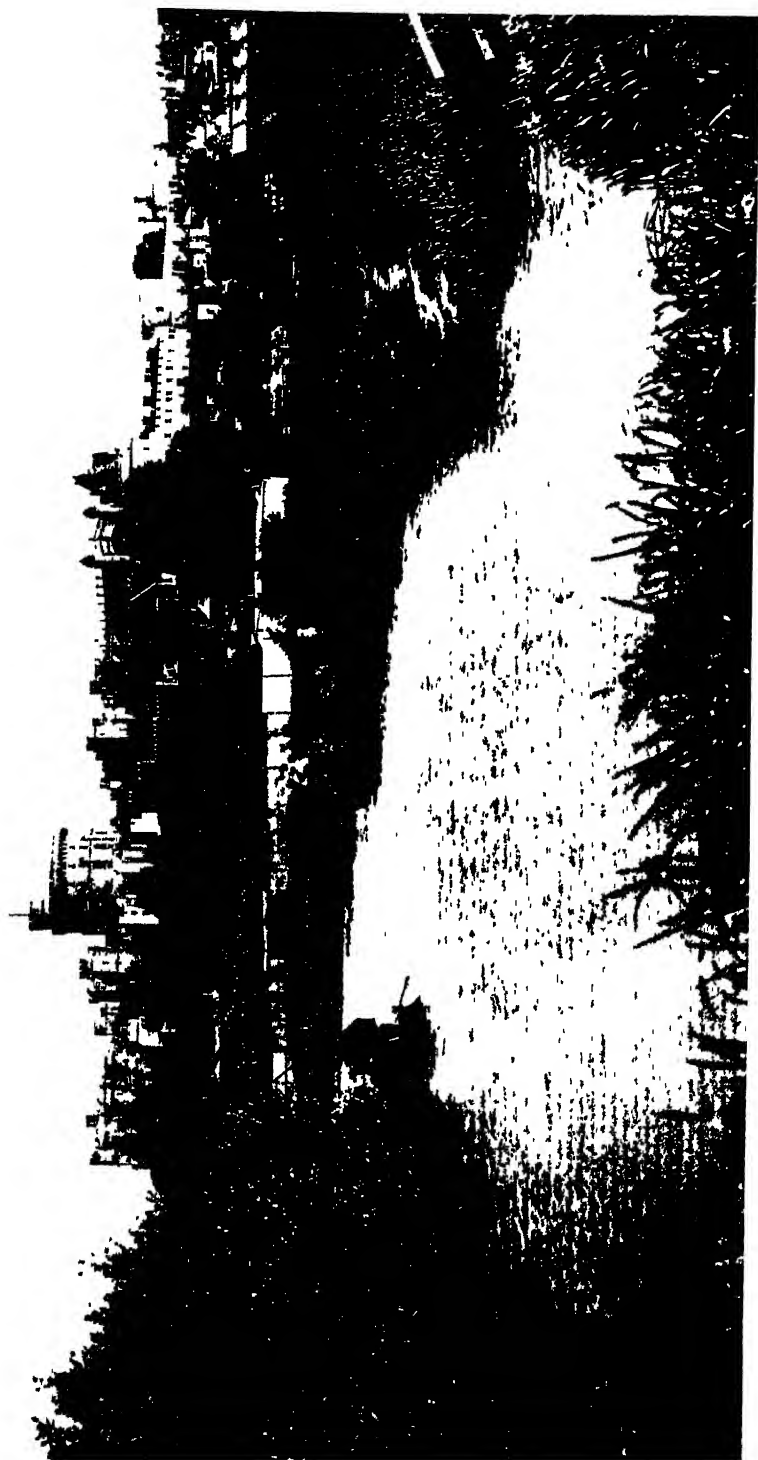


850. Roof at Trunch Church (From a Drawing by H. Clutton)



851.

Roof of Aisle in New Walsingham Church.

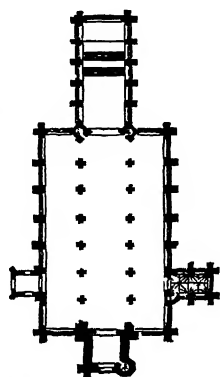


WINDSOR CASTLE
FROM THE THAMES

Walsingham of the mode adopted for roofing aisles. Some, of course, are simpler, but many much more elaborate. In later periods they become flatter, and more like the panelled ceiling of a hall or chamber; but they were always perfectly truthful in construction, and the lead was laid directly on the boarded framing. They thus avoided the double roof, which was so inherent a defect in the vaulted forms, where the stone ceiling required to be protected externally by a true roof.

Among so many examples it is difficult to select one which shall represent the class, but the annexed plan of Walpole St. Peter's, Norfolk, will suffice to explain the typical arrangement of an English parish church. In almost every instance the nave had aisles, and was lighted by a clerestory. The chancel was narrow and deep, without aisles, and with a square termination. There was one tower, with a belfry, generally, but not always, at the west end; and the principal entrance was by a south door, usually covered by a porch of more or less magnificence, frequently, as in this instance, vaulted, and with a muniment room or library chamber over it.

Often, as at Coventry, Boston, and other places, these churches with the above described arrangements almost reached the dimensions of small cathedrals, the towers and spires matching those of the proudest ecclesiastical edifices, and in many instances the details of their tracery and the beauty of their sculptured ornaments are quite equal to anything to be found in the cathedral of the diocese.



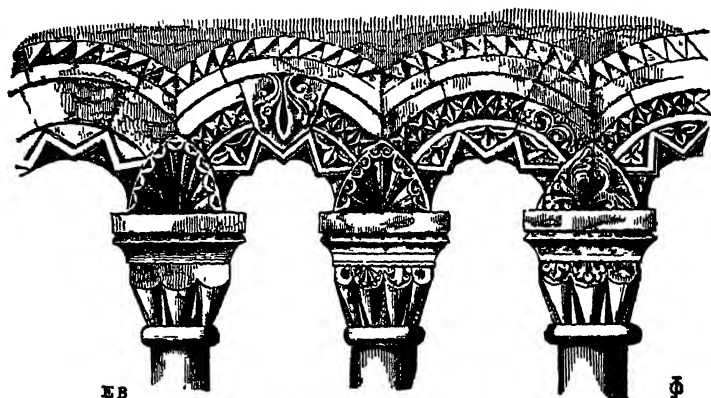
852 Plan of Church of Walpole St. Peter's, Norfolk.
Scale 100 ft. to 1 in.

DETAILS

When we consider the brilliancy of invention displayed in the decorative details of French ecclesiastical buildings, the play of fancy and the delicacy of execution, it must perhaps be admitted that in this respect the French architects of the Middle Ages far excelled those of any other nation. This was, no doubt, due in a great measure to the reminiscences of classical art that remained in the country, especially in the south, where the barbarian influence never really made itself felt, and whence the feeling gradually spread northwards, and may be traced in the quasi-classical details of the best French examples of the 13th century, even in the Isle de France. More also should perhaps be ascribed to the Celtic feeling for art, which still characterises the French nation, and has influenced it ever since its people became builders.

Though the English must yield the palm to the French in this respect, there is still a solidity and appropriateness of purpose in their details which goes far to compensate for any want of fancy. There is also in this country a depth of cutting and a richness of form, arising from the details being so often imitated from wood-carving, which is architecturally more valuable than the more delicate exuberance of French examples.

These remarks apply with almost equal force to figure-sculpture as a mode of decoration. Neither in Germany nor in this country is anything to be found at all comparable with the great sculptural Bibles of Rheims, Chartres, Bourges, and other great cathedrals of France; even such at Pontiers, Arles, St. Gilles, are richer in this respect than many of our largest churches. It is true that the sculptures of the façade at Wells, or of the Angel Choir at Lincoln,



853

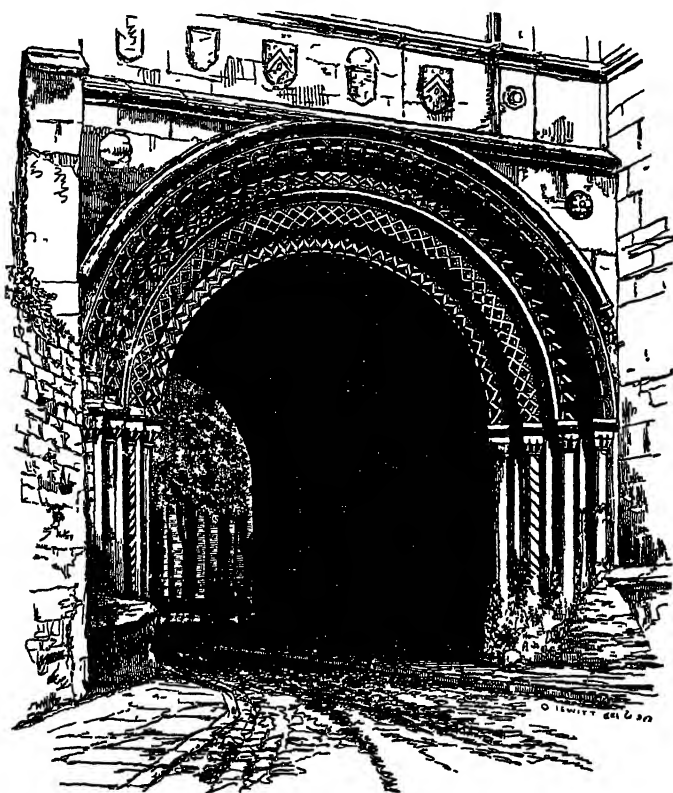
Staircase at Canterbury Cathedral

and the façade of Croyland Abbey, are quite equal in merit to anything of the same period on the Continent, and, had there been the same demand, we might have done as well or better than any other nation. Whether it arose from a latent feeling of respect for the Second Commandment, or a cropping out of Saxon feeling, certain it is that, with certain exceptions, such as the Lady Chapel at Ely, figure-sculpture gradually died out in England. In the 14th century it was not essential; in the 15th and 16th it was subordinate to the architectural details, and in this respect the people became Protestant long before they thought of protesting against the pope and the papist form of worship.

As already hinted at, it is probable that a great deal of the richness of English decorative carving is due to the employment, in early times, of wood as a building material in preference to stone. It

is difficult, for instance, to understand how such a form of decorative arch as that on the old staircase at Canterbury could have arisen from any exigency of stone construction, but it displays all that freedom of form and richness of carving that might easily arise from the employment of timber.

The same remarks apply, though in a less degree, to the Norman gateway at Bristol (Woodcut No. 854), which may be regarded as a



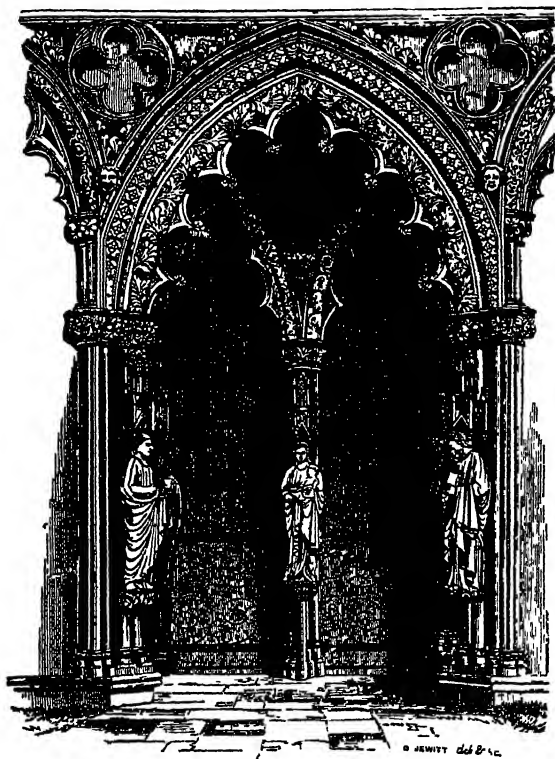
854.

Norman Gateway, College Green, Bristol. (Cath. Hb.)

typical specimen of the style—sober, and constructive, yet rich—without a vestige of animal life, but with such forms as an ivory or wood carver might easily invent, and would certainly adopt.

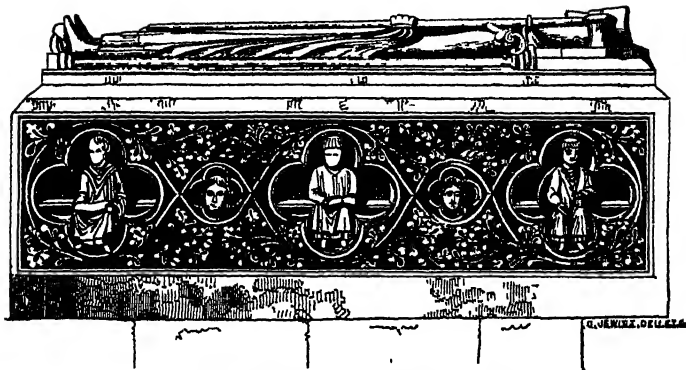
The great defect of such a style of decoration as this was its extreme elaboration. It was almost impossible to carry out a large building, every part of which should be worked up to the same keynote as this; and, if it had been done, it would have been felt that the effect was not commensurate with the labour bestowed upon it. What the architects therefore set to work to invent was some mode of

that it is difficult to go wrong in selecting examples, though hopeless to expect, with any reasonable amount of illustration, to explain its



856.

West Doorway, Lichfield Cathedral (Cath. Hb.)

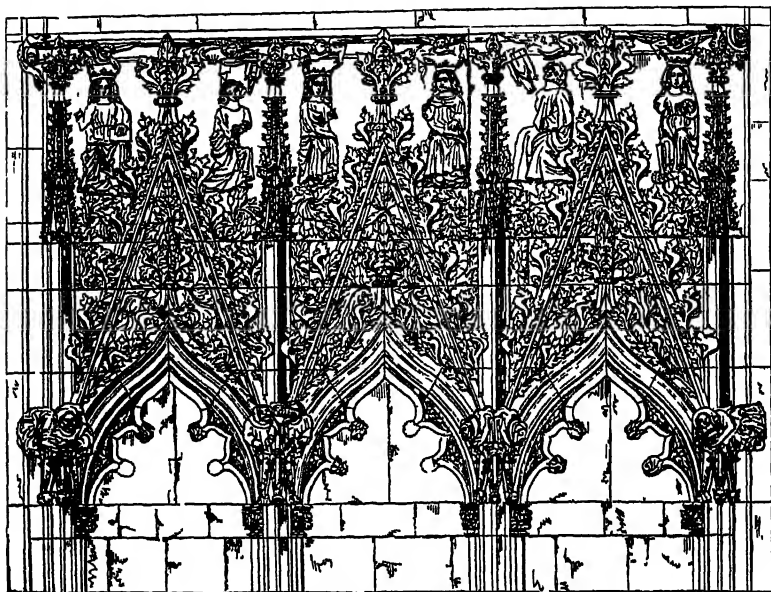


857.

Tomb of Bishop Marshall, Exeter Cathedral. (Cath. Hb.)

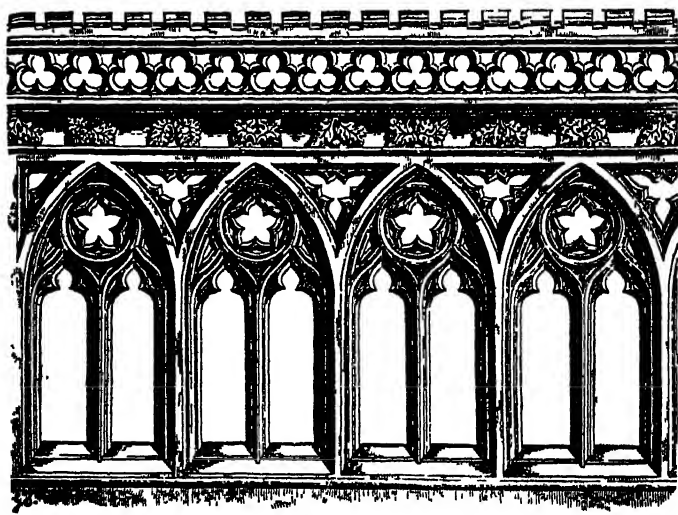
beauties. The niches at the back of the altar-screen at Winchester are among the best examples of that combination of constructive lines and

decorative details which when properly balanced make up the perfection of architectural decoration ; or, perhaps, even better than these



858.

Triple Canopy, Heckington Church, Lincolnshire

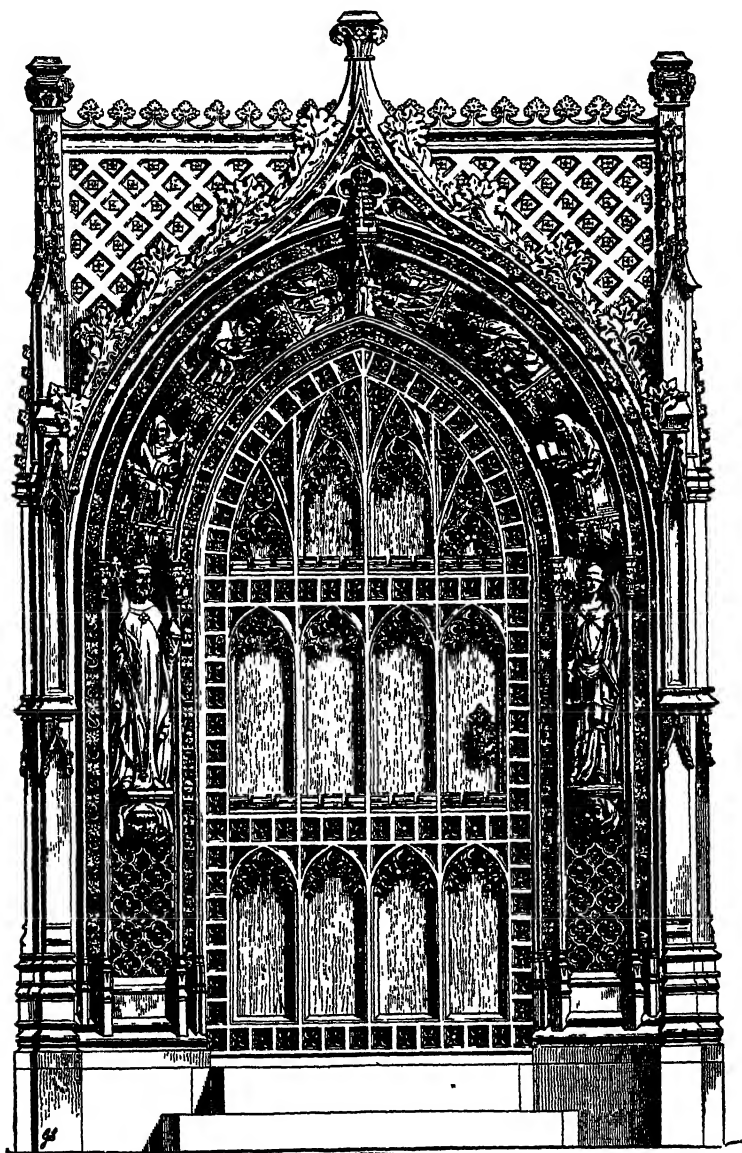


859.

Prior de Estria's Screen, Canterbury Cathedral (Oath Hb)

are the heads of the three niches over the sedilia in the parish church at Heckington in Lincolnshire (Woodcut No. 858). The style of these examples is peculiar to England, and quite equal to anything that can

be found on the Continent, and thousands of examples, more or less perfect, executed during the Edwardian period, exist in every corner of the country Bishop Marshall's tomb at Exeter (Woodcut No. 621),



though somewhat earlier, displays the same playful combination of conventional foliage with architectural details.

After the year 1300, however, we can perceive a change gradually

creeping over the style of decoration. Constructive forms are becoming more and more prominent, merely decorative features being gradually dropped as years went on. In Prior de Estria's screen in Canterbury Cathedral, for instance (Woodcut No 859), though all the elegance of earlier times is retained, the principal features are mechanical, and the decoration much more subdued than in the examples just quoted. The celebrated doorway leading to the chapter-house at Rochester (Woodcut No 860) is a still more striking example of this. It is rich even to excess, but the larger part of its decoration consists of ornaments which could be drawn with instruments. Of free-hand carving there is comparatively little and though the whole effect is very satisfactory, there is so evident a tendency towards the mere mechanical

arrangement of the Perpendicular style that it does not please to the same extent as earlier works of the same class.

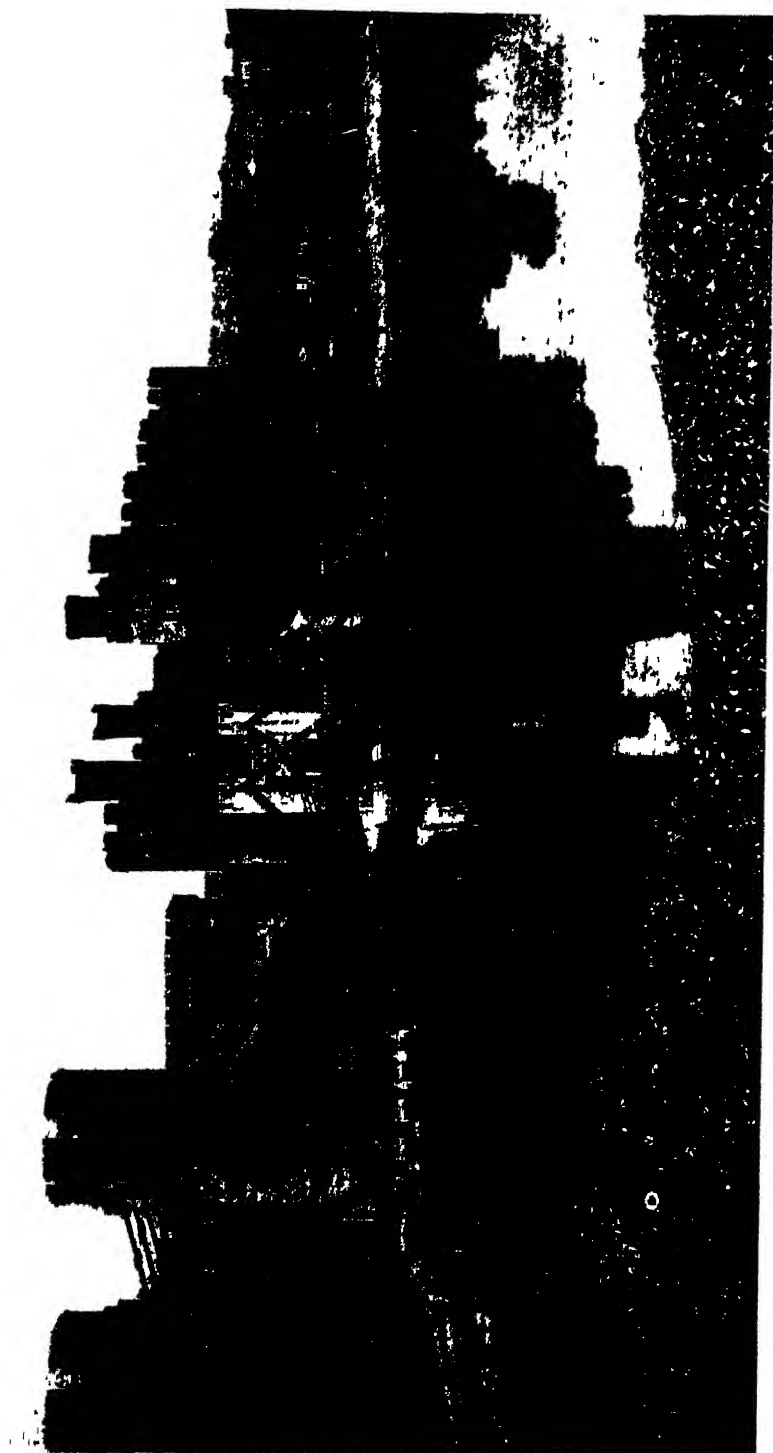
TOMBS.

Among the more beautiful objects of decorative art with which our churches were adorned during the Middle Ages are the canopies or shrines erected over the burying-places of kings or prelates, or as cenotaphs in honour of their memory. Simple slabs, with a figure upon them, seem to have been all that was attempted during the Norman period, but the pomp of sepulchral magnificence gradually developed itself, so that by the end of the 13th or beginning of the 14th century we have some of the most splendid specimens existing, and the practice lasted down almost to the Renaissance, as exemplified in Bishop West's tomb at Ely (1515-1534), or Bishop Gardiner's at Winchester (1531-1555).

At first the tomb-builders were content with a simple wooden tester, like that which covers the tomb of the Black Prince at Canterbury; but this became one of great beauty when applied, as in Westminster Abbey, to the tomb of Edward III.



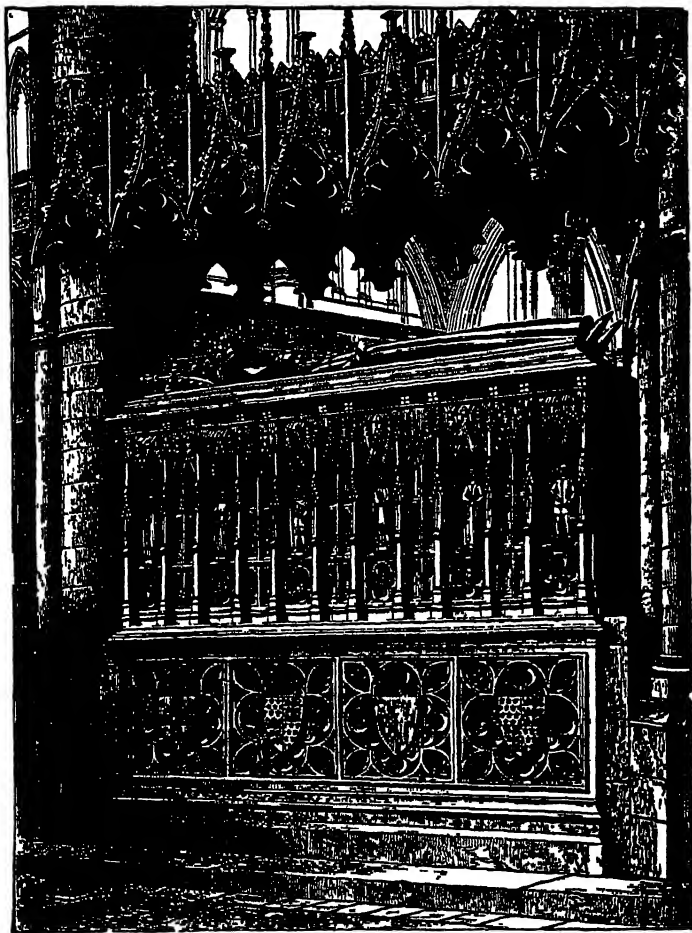
861. Tomb of the Black Prince, Canterbury Cathedral. (Cott. Hb.)



CONWAY CASTLE, WALES

(Woodcut No. 862), where its appropriateness and beauty of detail distinguish it from many more ambitious shrines in stone.

In general design these two monuments are similar to one another, and must have been erected very nearly at the same time—the difference being in the superior richness and elaboration of the regal as compared with the princely tomb.



Although this form of wooden tester was the most usual in monuments of the age, stone canopies were also frequently employed, as in the well-known monument of Aymer de Valence (died 1324) in Westminster Abbey. But all previous examples were excelled by the beautiful shrine which the monks of Gloucester erected, at a considerably later period, over the burying-place of the unfortunate

Edward II. (Woodcut No 863). In its class there is nothing in English architecture more beautiful than this. It belongs to the very best age of the style, and is carried out with a degree of propriety and

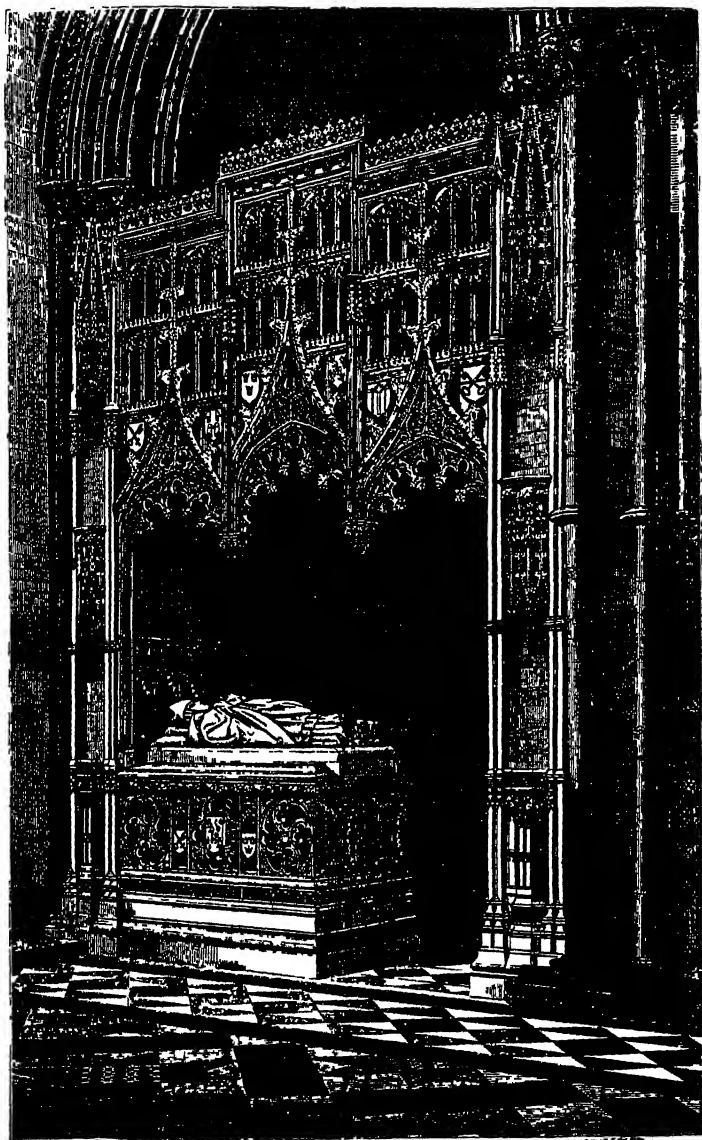


863.

Tomb of Edward II. in Gloucester Cathedral. (Cath Hb)

elegance which has not been surpassed by any example now remaining. If the statues with which it was once adorned could now be replaced, it would convey a more correct idea of the style of the Edwardian period than can be obtained from larger examples.

It seems to have been as much admired then as now ; for we find its form repeated, with more or less correctness of outline and detail,



364.

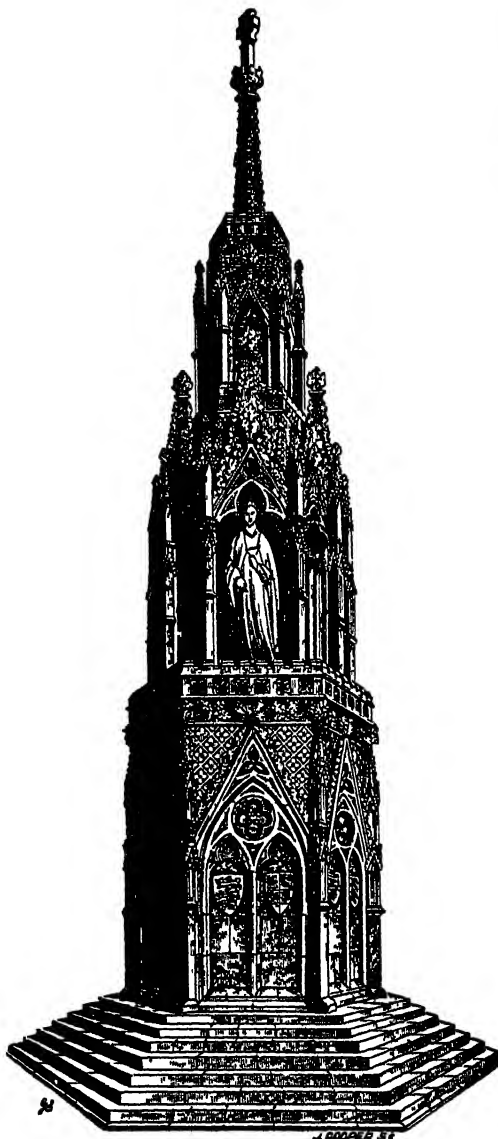
Tomb of Bishop Redman in Ely Cathedral. (Cath. Hb.)

at Winchester, at Tewkesbury, and St. Alban's, as well as elsewhere, the whole forming a series of architectural illustrations unmatched in their class by anything on the continent of Europe.

As a fine specimen of the form taken by a multitude of these tombs during the last period of Gothic art we may select that of Bishop Redman at Ely (1501-1506). Though so late in date, there is nothing offensive either in its form or detail. On the contrary, it is well pro-

portioned and appropriate; and though there is a little display of over-ingenuity in making the three arches of the canopy sustain themselves without intermediate supports, this is excusable from its position between two massive piers. It is doing in stone what had been done in wood over Edward III's tomb at Westminster, and is one of many instances which might be quoted of the interchangeable-ness of wooden and stone forms during the whole of the Middle Ages in this country, and a proof of the influence the one always had on the other.

Among the most beautiful monuments of a quasi-sepulchral character existing in this country are the crosses erected by Edward I. on the spots at which the body of his queen Eleanor rested on its way from Nottinghamshire to London. Originally, it is said, there were



865.

Waltham Cross (restored).

fifteen of these, all different in design. Three only now remain; one near Northampton, one at Geddington, and a third at Waltham (Wood-

cut No. 865).¹ Though greatly dilapidated, enough remains to show what was the original design. While extremely varied both in outline and detail, every part is elegant, and worthy of the best age of English architecture.

Had it not been the custom in those days to bury the illustrious dead within the walls of the churches, this is probably the form which sepulchral monuments would generally have taken. If we may judge from the examples left us, we can have little doubt but that, with more experience and somewhat increased dimensions, these monuments would have surpassed the spires of our cathedrals or parish churches in every respect as architectural designs. Being entirely free from utilitarian exigencies, the architect had only to consult the rules of his art in order to produce what would be most pleasing and most appropriate. We can only therefore regret that so purely English a form of sepulchral design began and ended with this one act of conjugal devotion.

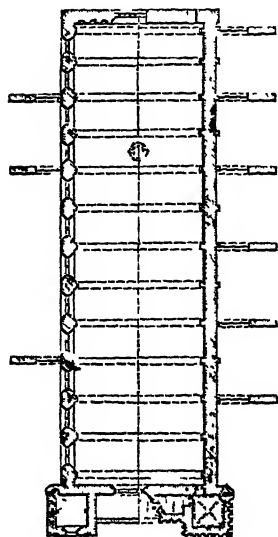
CIVIL AND DOMESTIC ARCHITECTURE.

One of the most remarkable characteristics of English architecture, though but a negative one, is the almost total absence of any municipal buildings during the whole period of the Middle Ages. The Guildhall of London is a late specimen, and may even be called an insignificant one, considering the importance of the city. There are also some corporation buildings at Bristol, and one or two unimportant town-halls in other cities, but there we stop. Nothing can more vividly express how completely the country was Frenchified by the result of the battle of Hastings, than this absence of municipal architecture. Till a very recent period the king, the baron, and the bishop, were the estates of the realm. The people were nowhere, and neither municipalities nor guilds could assert an independent existence.

On the other hand, in proportion to her population, England is rich in castles beyond any other country in Europe—especially of the Norman or round-arched Gothic age. Germany, as already pointed out, has some fine examples of the Hohenstaufen period. France has scarcely any, and neither France nor Germany can match such castles as those of London, Rochester, Norwich, Rising, &c. The Welsh castles of the Edwardian period form an unrivalled group themselves; and are infinitely superior, both in extent and architectural magnificence, to the much-lauded robber-dens of the Rhineland; while such castles as Raglan, Chepstow, Kenilworth, Warwick, or Windsor are, for picturesque

¹ Mr Scott produced a free copy of one of them as the Oxford Martyrs' Memorial, and Edward Barry another as a restoration of Charing Cross. Both are very beautiful objects, but neither of them exhausts the subject.

beauty and elegance of detail, quite unmatched except by one or two ruined strongholds in the North of France. The discussion of their merits, however, would more probably come under the head of military architecture, which is excluded from this work, and cannot therefore be entered on here.



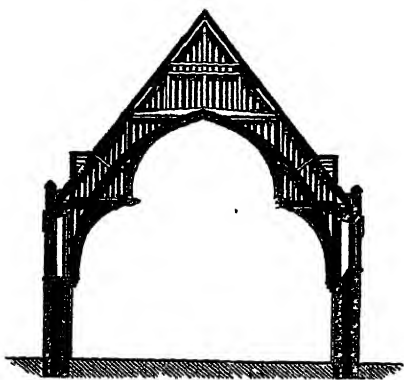
866. Plan of Westminster Hall.
Scale 100 ft. to 1 in.

It is difficult, however, to draw the line exactly between the castles and the castellated mansion, the moated grange, and lastly the mansion or manor-house, which, towards the end of the Gothic period, had become so numerous in England, and form an architectural group so beautiful and so peculiarly English.

Taken altogether, there is perhaps no class of buildings to which an Englishman may turn with more pride than the educational establishments which the Middle Ages have left him. Though in some cases entirely rebuilt and no doubt very much altered, still the colleges of Oxford and Cambridge retain much of their original features, and are unrivalled in their kind.

None of them, it is true, are very ancient as we now see them. With the exception of some of the earlier buildings at Merton, the greater number owe their magnificence to the days of Wykeham (ob. 1426) and Waynflete (ob. 1486). It was during the reign of Henry VI.

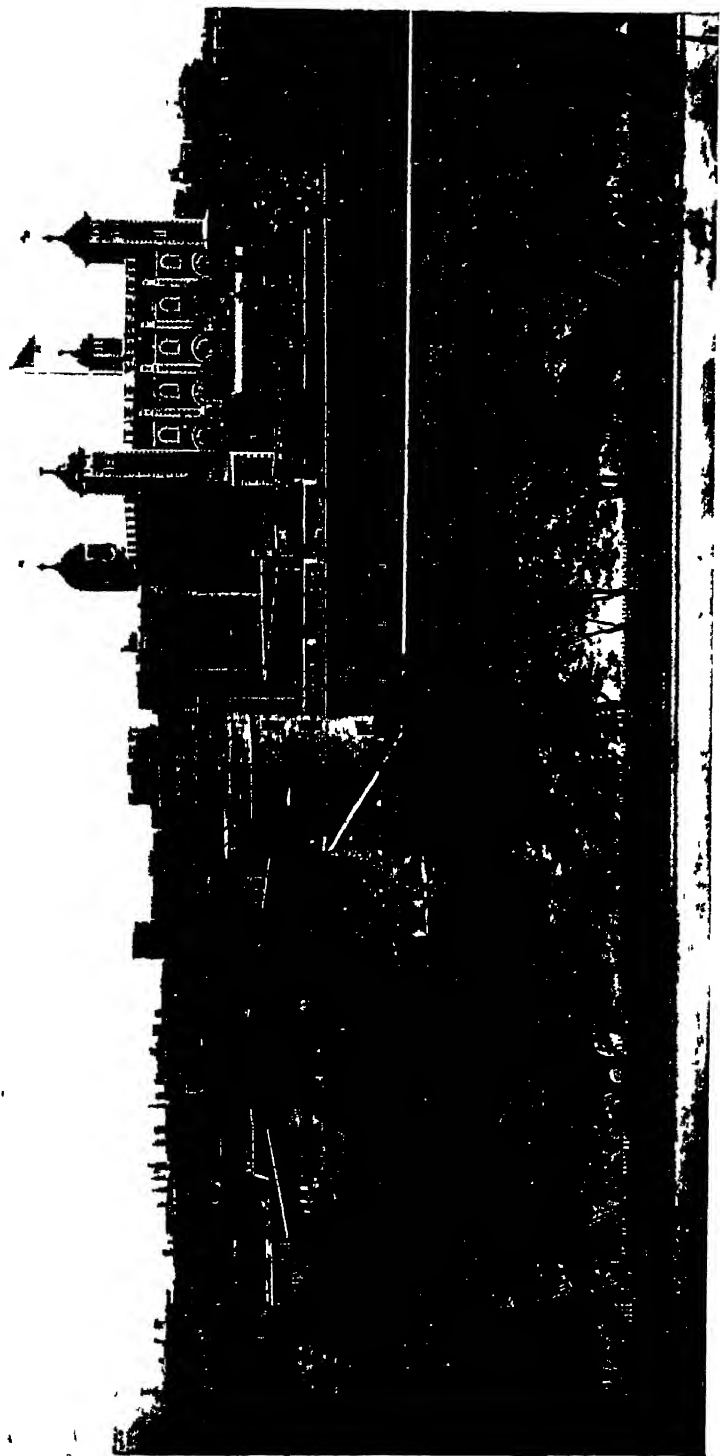
(1422-1470) that the great impulse was given, not only within the limits of the Universities, but by the foundation of Eton and Winchester, and other great schools, all which belong to the 15th century. But the building of Gothic or quasi-Gothic educational establishments was continued till the death of Queen Elizabeth (1602).



867. Section of Westminster Hall. Scale 50 ft. to 1 in.

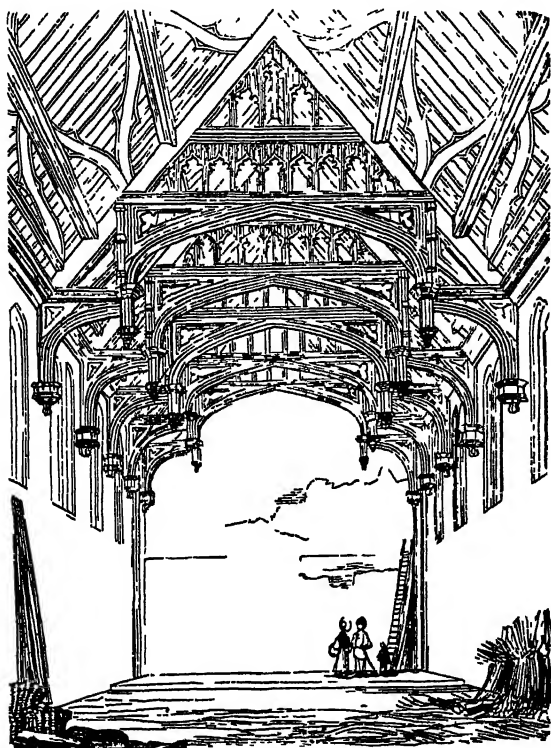
In most respects, these colleges resembled the monastic establishments, which, to

a certain extent, they may be considered as superseding. The principal difference was that the church of the monastery became subduced into a chapel exclusively devoted to the use of the inmates of the college. In all these establishments, whether palaces or colleges,



THE TOWER OF LONDON

castles or manor-houses, the principal apartment was the hall, in some cases subordinate to the chapel only. It was on the halls that the architects lavished their art, and, generally speaking, these are most entitled to be considered as architectural features. Even now there are in England at least a hundred of these halls, either entire and in use, or sufficiently perfect to render their restoration easy. All have deeply and beautifully framed roofs of timber. In this respect they stand alone, no wooden roofs on the Continent being comparable with them.



868.

Hall of Palace at Eltham

Among them the largest and grandest is, as it ought to be, the hall of the King's Palace at Westminster, as rebuilt by Richard II. Internally it is 239 ft. long by 68 ft. in width, covering about 23,000 superficial feet. The hall at Padua is larger, and so may some others be, but none have a roof at all approaching this either in beauty of design or mechanical cleverness of execution. In this respect it stands quite alone and unrivalled, and, with the smaller roof of St. Stephen's chapel adjoining, seems to have formed the type on which most of the subsequent roofs were framed.

The roof of the hall at Eltham (Woodcut No. 868), which belongs to the reign of Henry IV., is inferior both in dimensions and design to

that at Westminster, but still displays clearly the characteristics of the style. It would have been better if the trusses had sprung from a line level with the sills of the windows, and if the arched frame had been less flat, but that was the tendency of the age, which soon became so exaggerated as to destroy the constructive proportion altogether.

We are not able to trace the gradual steps by which the hammer-beam truss was perfected, but we can follow it from the date of the hall at Westminster (1397), to Wolsey's halls at Hampton Court and Oxford, till it passed into the Jacobean versions of Lambeth or the Inner Temple. Among all these, that of Kenilworth, though small (86 ft. \times 43 ft.), must have been one of the most beautiful. It belongs to an age when the style adopted for halls had reached its acme of perfection (middle of 15th century), when the details of carpentry had been mastered, but before there was any tendency to tame the deep framing down to the flatness of a ceiling. The wooden roofs of churches were generally flatter and less deeply framed than those of the halls, which may have arisen from their being smaller in span, and being placed over clerestories with little abutment to resist a thrust; but, whether from this or any other cause, they are generally less beautiful.

There are few features of Mediæval art in this country to which attention could be more profitably directed than the roof; for, whether applied to secular or ecclesiastical buildings, the framed and carved wooden roof is essentially English in execution and application, and is one of the most beautiful and appropriate manifestations of our national art.

Did space admit of it, it would be easy to extend these remarks, and in so doing to explain and prove a great deal which in the previous pages it has been necessary to advance as mere assertion. The subject is, in fact, practically inexhaustible; as will be easily understood when it is remembered that for more than five centuries all the best intellects of the nation were more or less directed towards perfecting this great art. Priests and laymen worked with masons, painters, and sculptors, and all were bent on producing the best possible building, and improving every part and every detail, till the amount of thought and contrivance accumulated in any single great structure is almost incomprehensible. If any one man were to devote a lifetime to the study of one of our great cathedrals—assuming it to be complete in all its Mediæval arrangements—it is questionable whether he would master all its details, and fathom all the reasonings and experiments which led to the glorious result before him. And when we consider that not in the great cities alone, but in every convent and every parish, thoughtful professional men were trying to excel what had been done and was doing, by their predecessors and their fellows, we shall understand what an amount of thought is built into the walls of our

churches, castles, colleges, and dwelling-houses. If any one thinks he can master and reproduce all this, he can hardly fail to be mistaken. My own impression is that not one-tenth part of it has been reproduced in all the works written on the subject up to this day, and much of it is probably lost and never again to be recovered for the instruction and delight of future ages.

 COMPARATIVE TABLE OF ENGLISH CATHEDRALS.¹

	Area.	Length inside	Western Towers.	Central Towers	Height of Nave	Height of Choir	Width of Nave	Width of Choir	Width of Central Aisle	Approximate ratio of Height to Width
	Feet.	Feet	Feet	Feet	Feet	Feet.	Feet	Feet.	Feet.	
York . . .	72,860	486	196	198	93	101	106	102	51	1 to 2
Lincoln . .	66,900	468	206	258	82	71	80	81	39	1 2
Winchester .	64,200	530	..	140	76	..	85	..	35	1 2.43
Westminster	61,729	505	220	..	103	..	75	..	35	1 3
Ely. . .	61,700	517	215	170	72	70	75	..	34	1 2.1
Canterbury .	56,280	514	152	229	80	70	73	85	33	1 2.4
Salisbury . .	55,840	450	..	404	84	..	82	..	35	1 2.3
Durham . .	55,700	473	164	216	74	..	81	77	32	1 2.3
Peterborough	50,516	426	154	143	78	..	79	..	36	1 2
Wells . .	40,680	388	125	165	67	..	69	..	34	1 2
Norwich . .	40,572	408	..	309	73	..	70	..	26	1 2.8
Worcester . .	38,980	387	..	191	66	..	78	..	32	1 2.45
Exeter. . .	45,370	383	70	..	72	..	34	1 2.1
Lichfield . .	33,930	319	192	252	55	..	66	..	28	1 4

¹ It is not pretended that this Table is quite correct in all details, but it is sufficiently so to present at a glance, a comparative view of the fourteen principal churches of England, and to show at least their relative dimensions

CHAPTER IV.

ARCHITECTURE OF SCOTLAND.

CONTENTS.

Affinities of Style—Early Specimens—Cathedral of Glasgow—Elgin—Melrose—
Other Churches—Monasteries

CHRONOLOGY.

DATES				DATES.			
	Accession	.	A. D.		Accession	.	A. D.
Malcolm Canmore.	"	.	1067	David II.	"	.	1329
David I.	"	.	1124	Robert II., Stuart	"	.	1371
William the Lion	"	.	1165	James I.	"	.	1406
John Balliol	"	.	1292	Mary Queen of Scots	"	.	1542
Robert Bruce	"	.	1306				

THERE are few countries in the world in respect to whose architecture it is so difficult to write anything like a connected narrative as it is regarding that of Scotland. The difficulty does not arise from the paucity of examples, or from their not having been sufficiently examined or edited, but from the circumstance of the art not being indigenous. No one who knows anything of the ethnography of art would suspect the people who now inhabit the lowlands of Scotland of inventing any form of architecture, or of feeling much sympathy with it when introduced from abroad. It may have been that the Celtic element was more predominant in the country during the Middle Ages, and that the Teutonic race only came to the surface with the Reformation, when they showed their national characteristic in their readiness to destroy what they could not build. If this were not so, it must have been that their priests were strangers, who brought their arts with them and practised them for their own satisfaction, in despite of the feelings of their flocks.

Briefly, the outline of Scotland's architectural story seems to be this. Till the time of the wars of the Edwards, the boundary line between the styles on either side of the border cannot be very clearly defined. In Scotland the forms were ruder and bolder than in the South, but were still the same in all essential respects.

After the days of Wallace and of Bruce, hatred of the English threw the Scotch into the arms of France. Instead of the Perpendicular style of the South, we find an increasing tendency to copy the

Flamboyant and other contemporary styles of France, till at last, just as the style was expiring, both churches and mansions are almost literal copies of French designs. But, in addition to these, an Irish element is strongly felt at Iona and throughout the West, extending in exceptional cases to the east, as at Brechin and Abernethy. It can also be traced in the Lothians in the chapels and smaller edifices of the 11th and 12th centuries, and seems to be the ingredient which distinguishes the early Round-arched Gothic of Scotland from the Norman of England. Besides these three, a Scandinavian element makes itself felt in the Orkneys, and as far south as Morayshire; and even Spain is said to have contributed the design to Roslyn Chapel, and made her influence felt elsewhere.

All these foreign elements, imported into a country where a great mass of the people belonged to an art-hating race, tended to produce an entanglement of history very difficult to unravel. With leisure and space, however, it might be accomplished, and, if properly completed, would form a singularly interesting illustration, not only of the ethnography of Scotland, but of art in general.

The buildings of David I. (1124–1165) gave an immense impulse to the round-arched style, which continued for nearly a century after his time, and long after the pointed arch had been currently used in the South. It is true we find pointed arches mixed up with it, as at Jedburgh, but the pillars and capitals are those of the earlier orders, and the circular arch continued to be used from predilection whenever the constructive necessities of the building did not suggest the employment of the pointed form.

The feature of English art which the Scotch seem to have best appreciated was the lancet window, which suited their simple style so completely that they clung to it long after its use had been abandoned in England. This circumstance has given rise to much confusion in the dates of Scottish buildings, antiquaries being unwilling to believe that the lancet windows of Elgin and other churches really belong to the middle of the 14th century, after England had passed through the phases of circle and flowing tracery, and was settling down to the sober constructiveness of the perpendicular.

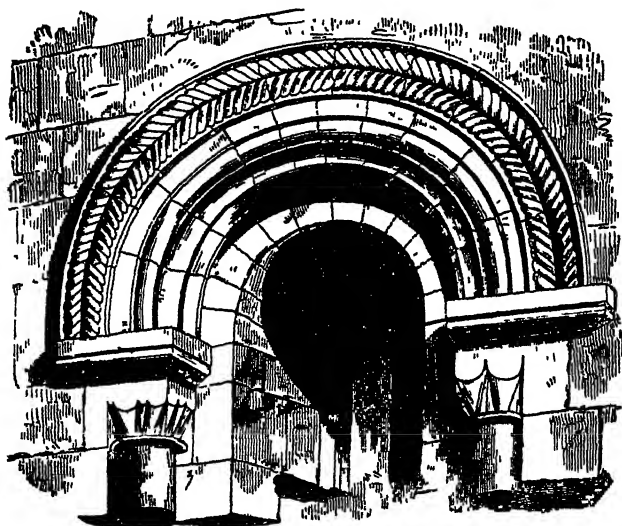
Circle tracery is, in fact, very little known in the North, and English flowing tracery hardly to be found in all Scotland. It is true that a class of flowing tracery occurs everywhere in Scotland, but it is, both in form and age, much more closely allied to French Flamboyant than to anything English. It was used currently during the whole period between the 2nd and 3rd Richards, and even during the Tudor period of England.

The one great exception to what has been said is the east window of the border monastery of Melrose; but even here it is not English Perpendicular, but an original mode of treating an English idea, found

only in this one instance, and mixed up with the flowing tracery of the period.

Of Tudor architecture there is no trace in Scotland; neither the four-centred low arch nor fan-vaulting are to be found there, nor that peculiar class of perpendicular tracery which distinguished the 16th and 17th centuries in the South. At that period the Scotch still adhered to their Flamboyant style, and such attempts as they did make at Perpendicular work were so clumsy and unconstructive that it is little wonder that, like the French, they soon abandoned it.

In so poor and thinly-populated a country as Scotland was in the 11th century, it would be in vain to look for any of the great ecclesi-



369.

Window, Leuchars (From a Drawing by R. W. Billings¹)

astical establishments that are found in the South. The churches seem at this age to have been cells or small chapels, such as that at Leuchars or Dalmeny, closely resembling St. Clement's church at Trondhjem, and a little larger than the contemporary edifices so frequently found in Ireland.

Leuchars is perhaps the most characteristic and beautiful specimen of its class, of which, like the contemporary chapel at Cashel, which it much resembles, it may be considered as the type. Its details are

¹ The illustrations in this chapter being taken from the beautiful work by R. W. Billings, entitled 'The Baronial and Ecclesiastical Antiquities of Scotland,' the source of each will not be specified, except when it forms an exception to this

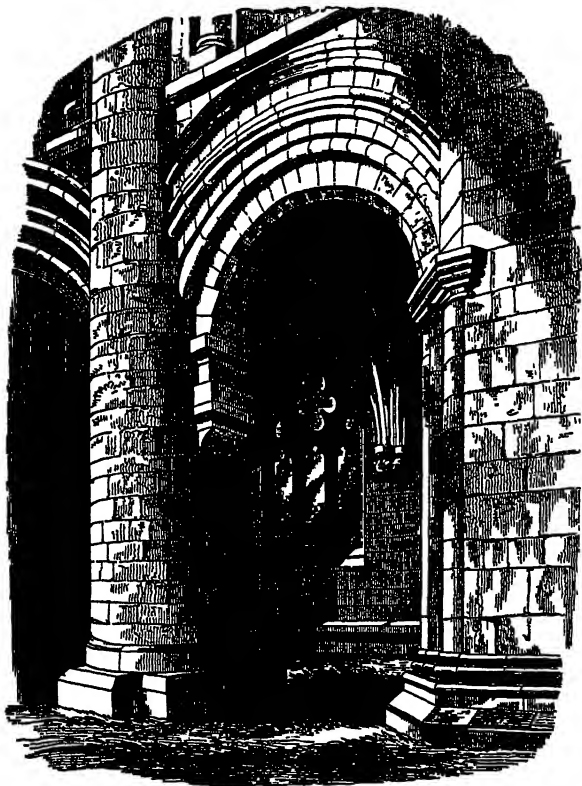
rule Mr Billings' work is certainly the most correct and beautiful that has yet appeared on the subject, and if completed with the necessary plans and architectural details, would be unrivalled as a monograph of an architectural province.



GLAMIS CASTLE, SCOTLAND

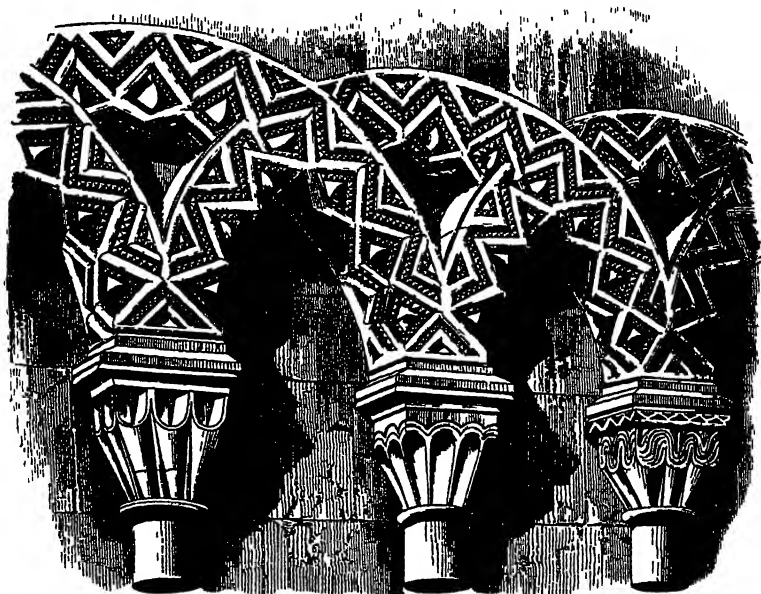
not only rich, but, as may be seen from the woodcut, bold and elegant at the same time. Both internally and externally, the ornament is applied in so masterly a manner that the beauty of the art makes up for the smallness of dimensions, and renders it one of the most interesting churches in Scotland.

David I. seems to have been the first king who gave an impulse to the monastic establishments and to the building of larger churches. His endowment of the great border abbeys, and his general patronage



of the monks, enabled them to undertake buildings on a greatly extended scale. The churches of Jedburgh and Kelso, as we now find them, belong either to the very end of the 12th or beginning of the 13th century. They display all the rude magnificence of the Norman period, used in this instance not experimentally, as was too often the case in England, but as a well-understood style, whose features were fully perfected. So far from striving after novelty, the Scotch architects were looking backwards, and culling the beauties of a long-established style. The great arch under the tower of Kelso is certainly

a well-understood example of the pointed-arched architecture of the 13th century, while around it and above it nothing is to be seen but circular-headed openings, combined generally with the beaded shafts and the foliage of the Early English period. The whole is used with a Doric simplicity and boldness which is very remarkable. Sometimes, it must be confessed, this independence of constraint is carried a little too far, as in the pier-arches at Jedburgh (Woodcut No. 870), which are thrown across between the circular pillars without any subordinate shaft or apparent support. This was a favourite trick of the later Gothic architects of Germany, though seldom found at this early



871.

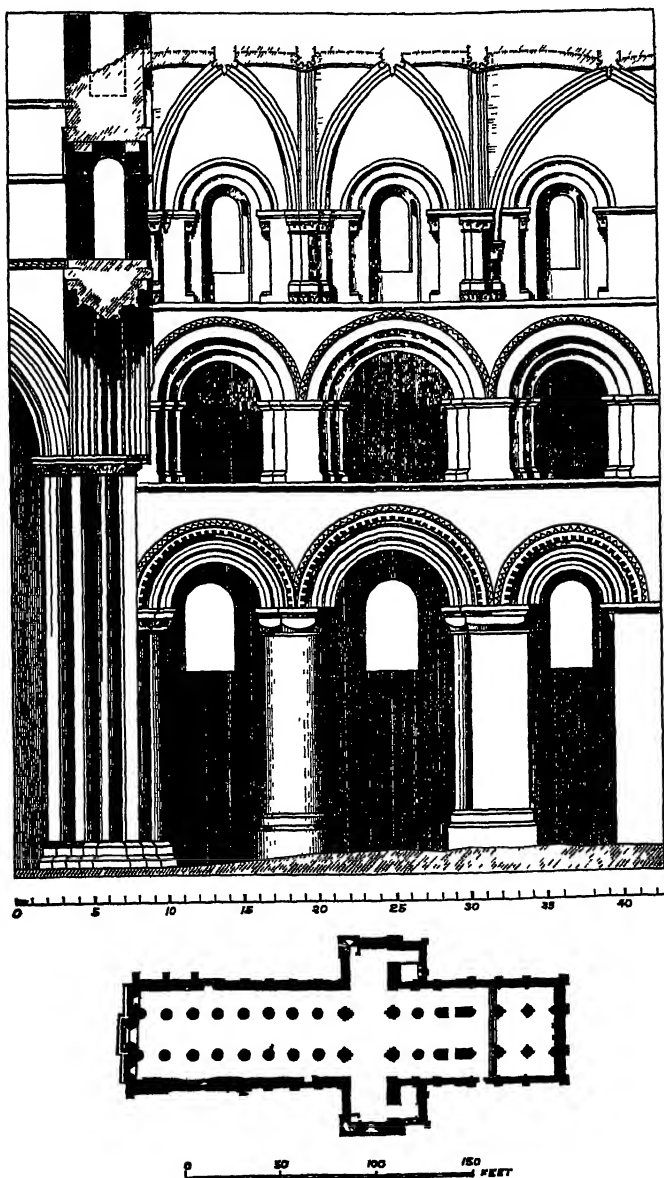
Arches in Kelso Abbey.

period. • Here the excessive strength of the arch in great measure excuses it.

Besides the general grandeur of their designs, a great deal of the detail of these abbeys is of the richest and best class of the age. The favourite form, as at Leuchars, is that of circular arches intersecting one another, so as to form pointed sub-arches, and these are generally ornamented with all the elaborate intricacy of the period, such as is shown in Woodcut No. 871, taken from Kelso Abbey Church.

While these great abbeys were being erected in the southern extremity of the kingdom, the cathedral of St. Magnus was founded at the other extremity, at Kirkwall in the Orkneys. This building was commenced 1137, and carried on with vigour for some time. The first three arches of the choir (Woodcut No. 872) are all that can certainly

be identified as belonging to that period. The arch of the tower belongs probably to the 14th century, and the vaulting can hardly be

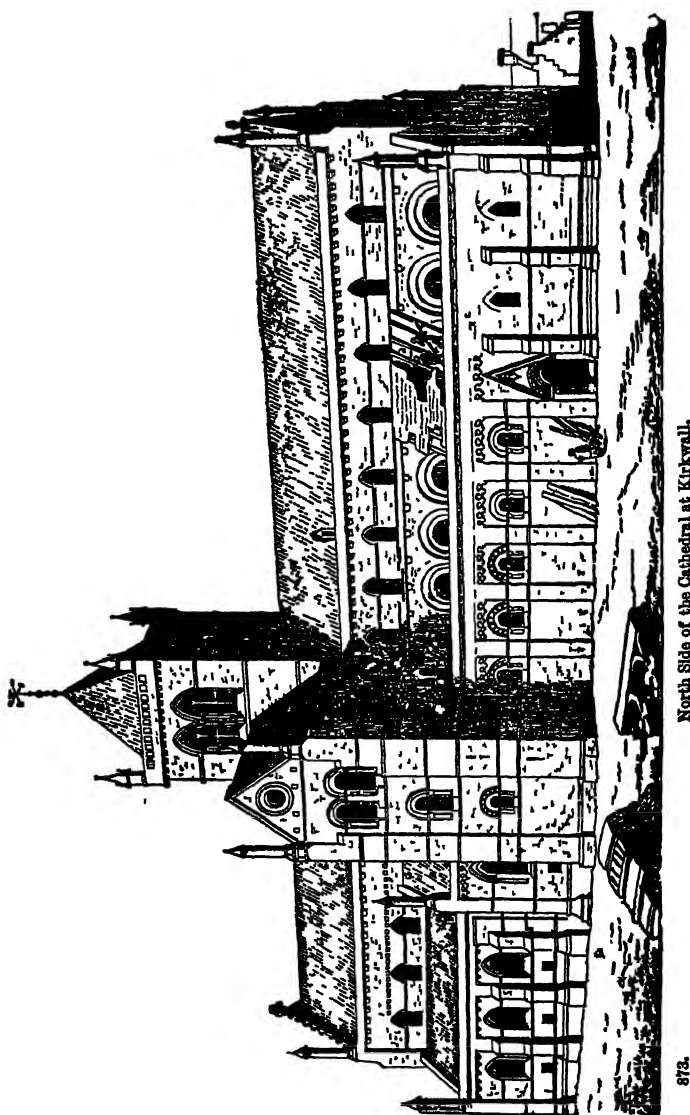


372.

Plan and three Bays of Choir, Kirkwall Cathedral.

much earlier. The three arches beyond this are still circular, though with mouldings of a late period. It is said that these were not completed till the 16th century.

Farther south, arches of this late age could not have been built in such an ancient style, but we can believe that in that remote corner the old familiar modes were retained in spite of changing fashion ;



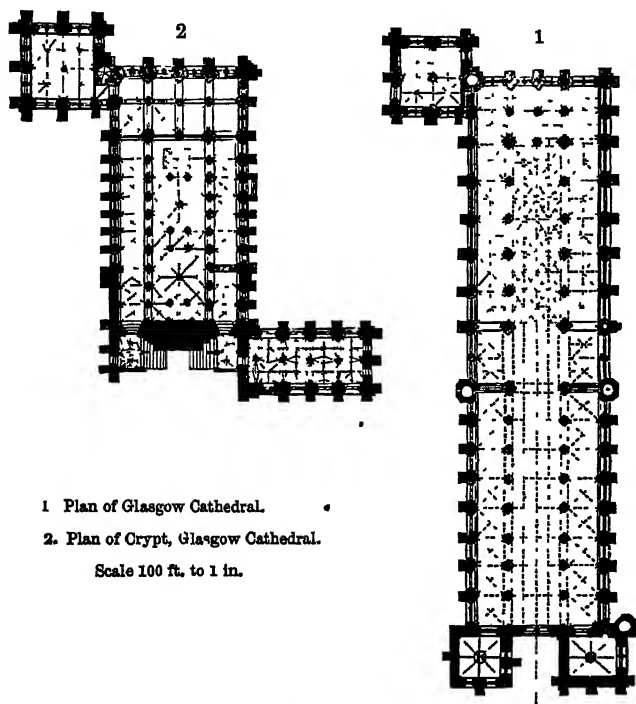
North Side of the Cathedral at Kirkwall.

and the consequence is that, though the building of this cathedral was carried on at intervals during 400 years, it is at first sight singularly uniform in style, and has all the characteristics of an old Norman building, as may be seen from the woodcut.

The cathedral of Glasgow (Woodcut No. 878) is almost the only

other of the great ecclesiastical edifices of Scotland which retains its original features in a nearly perfect state. It is at the same time one of the most satisfactory and characteristic buildings to be found in the country

The bishopric was founded by David I., but it was not till after several destructions by fire that the present building was commenced, probably about the year 1240. The crypt and the whole of the choir belong to the latter part of the 13th century, the nave to the 14th, the



1. Plan of Glasgow Cathedral.

2. Plan of Crypt, Glasgow Cathedral.

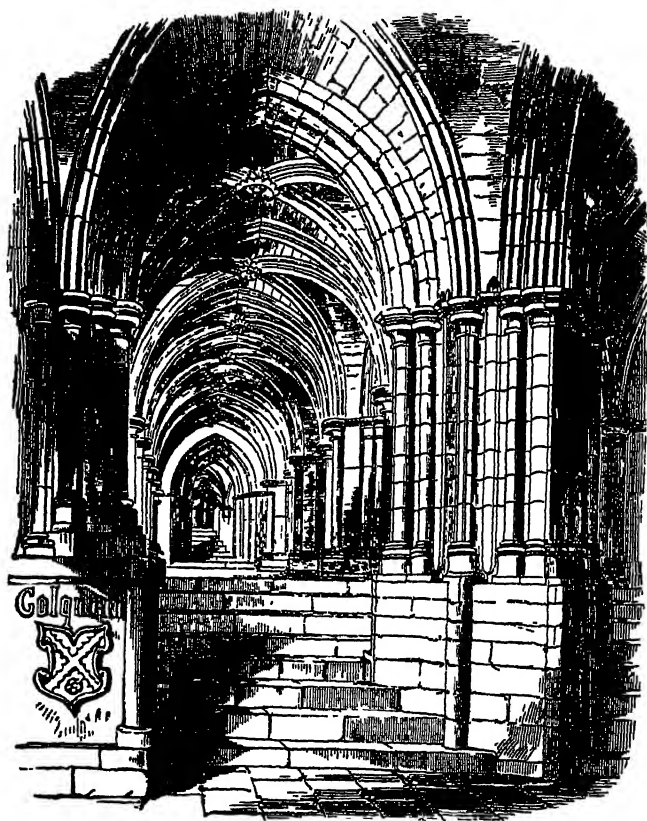
Scale 100 ft. to 1 in.

tower and spire to the 15th. The central aisle never having been intended to be vaulted, the architect has been enabled to dispense with all pinnacles, flying buttresses, and such expedients, and thus to give the whole outline a degree of solidity and repose which is extremely beautiful, and accords perfectly with the simple lancet openings which prevail throughout.

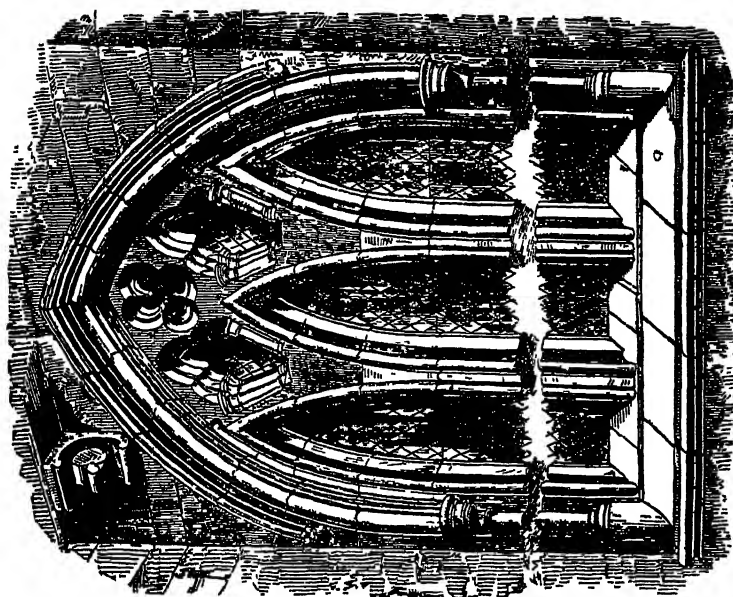
The whole length of the building externally, exclusive of the western towers, one of which has recently been pulled down, is 300 feet, the breadth 73, and the area about 26,400 feet, so that it is far from being a large building; but its situation is so good, and its design and proportion so appropriate and satisfactory throughout,

that it is more imposing than many others of twice its dimensions. The spire, which is 219 feet in height from the floor of the church, is in perfect proportion to the rest of the building, both in dimensions and outline, and aids very much the general effect of the whole.

The glory of this cathedral is its crypt, which is unrivalled in Britain, and indeed perhaps in Europe. Almost all the crypts now found in England were built during the Norman period, or very

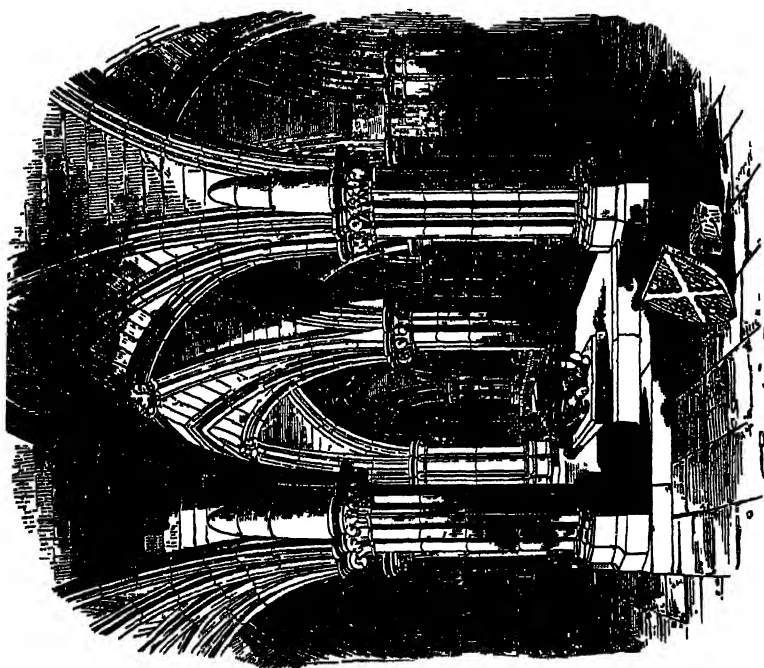


early in the pointed style. That at Glasgow, however, belongs to the perfected style of the 13th century, and as the ground falls rapidly towards the west, the architect was enabled to give it all the height required, and to light it with perfect ease. Here the crypt actually extends under and beyond the whole choir; but even with all its adjuncts, it did not equal in size the crypt of old St Paul's. There is a solidity, however, in the architecture of the crypt at Glasgow, a richness in its vaulting, and a variety of perspective in the spacing of



Claretory Window, Glasgow Cathedral.

877.



Crypt of Cathedral at Glasgow.

878.

its pillars, which make it one of the most perfect pieces of architecture in these islands

In the crypt and lower part of the church the windows are generally single or double lancet, united by an arch. In the clerestory they sometimes take the form of three lancets, united, as shown in Woodcut No 877, by an imperfect kind of tracery, more in accordance with the simplicity of the building than the more complex form pre-



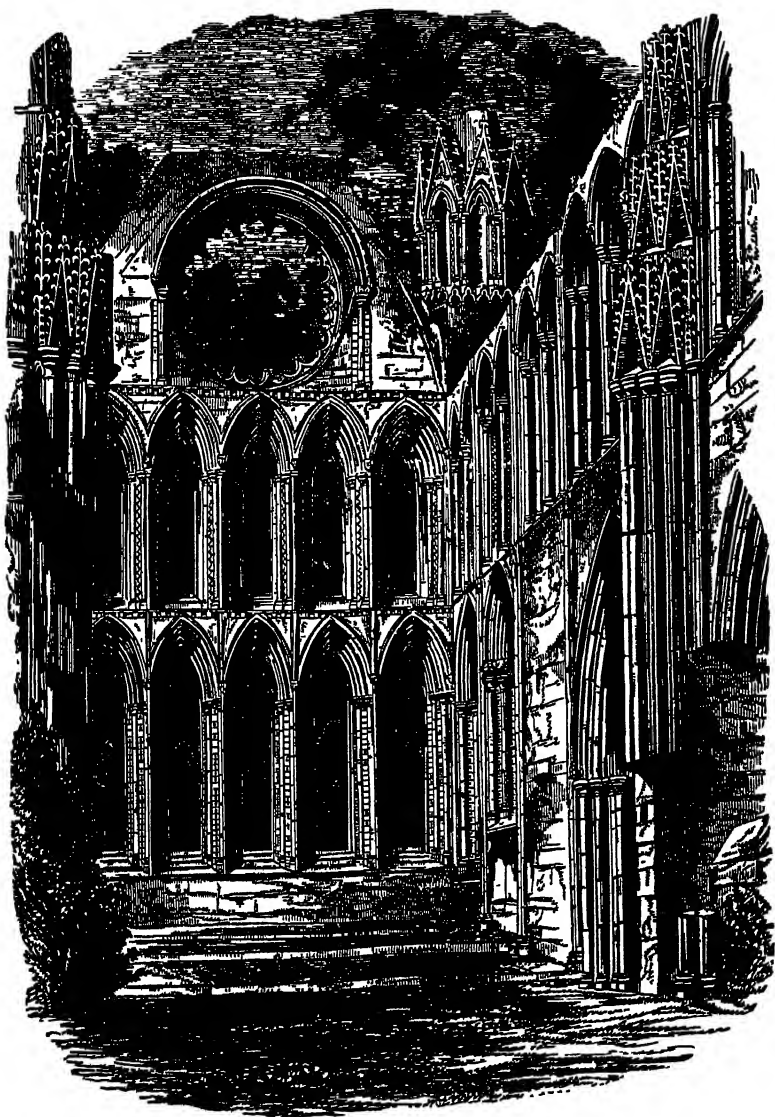
878.

East End of Glasgow Cathedral.

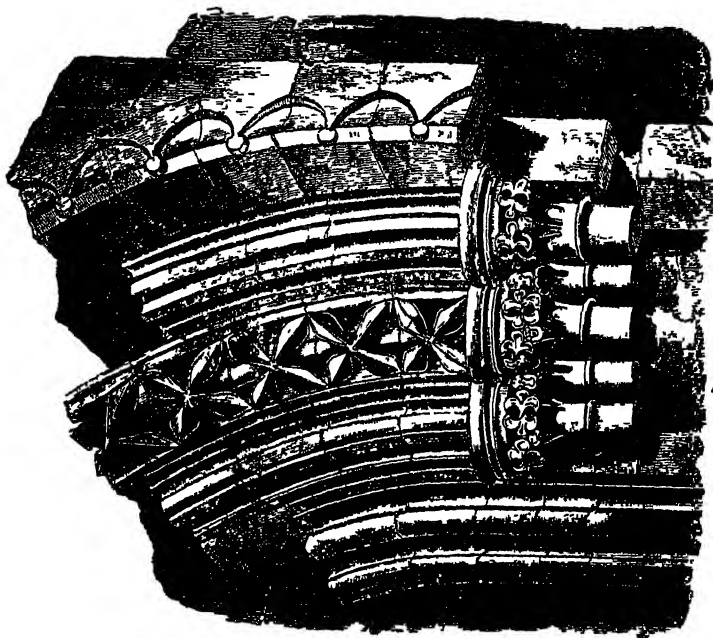
valent in England at the same period. In the south transept, and some of the later additions, there is a tracery of considerable elaboration and beauty of design.

Perhaps the most beautiful building in Scotland is, or was, the cathedral of Elgin. The province of Moray, in which it was situated, was so remote that it seems to have been comparatively undisturbed by the English wars, and the greater part of the building was erected during the Edwardian period, with all the beautiful details of that age.

The seat of the see was removed from Spynie to Elgin in the year 1223, and the cathedral commenced contemporaneously with those of Amiens and Salisbury. All that now remains of this period is the fragment

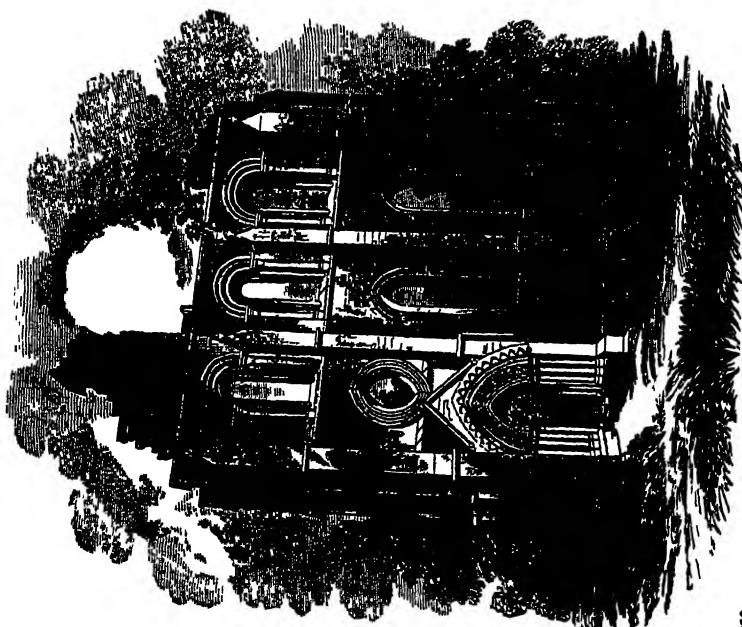


of the south transept (Woodcut No. 880), where we see the round arch reappearing over the pointed, at a period when its use was entirely discontinued in the South. At the same time the details of the



Ornament of Doorway, Elgin Cathedral.

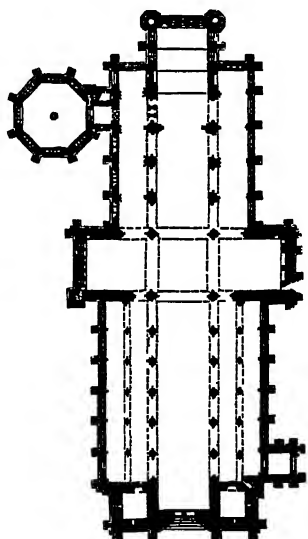
387



South Transept, Elgin Cathedral.

388

doorway (Woodcut No 881) show that in other respects the style was at that period as far advanced as in England. The cathedral was burnt down in 1270, and again partially in 1390. The choir and other parts which still remain were built subsequently to the first conflagration and escaped the second. These parts appear at first sight to belong to the lancet style of the previous century, but used with the details and tracery of the Edwardian period, and with a degree of beauty hardly surpassed anywhere. As compared with English cathedrals, that at Elgin must be considered as a small church, being only 253 ft. in length internally, and 82 wide across the five aisles of the nave. It is very beautifully arranged, and on the whole is perhaps more elegant in plan than any of the Southern examples. As a mechanical design, its worst fault is that the piers supporting the central tower want strength and accentuation. As will be seen from the plan, an attempt was made to throw the weight of the tower on the transept walls, which are built solid for this purpose; but this was artistically a mistake, while mechanically it caused the destruction of the tower at the beginning of the last century. The choir (see Woodcut No. 879) is terminated by what is virtually a great east window, but with piers between the compartments instead of mullions. As an architectural object this is a far more stable and appropriate design than a great mullioned window like that of York and others in England.



882 Plan of Elgin Cathedral (From an Original Plan.) Scale 100 ft to 1 in.

But the latter must be judged of as frames for glass pictures, which Elgin is by no means so well suited to display. Its details, however, are exquisite, and the whole design very rich and beautiful.

The north and south aisles of the nave and the chapter-house were rebuilt after the last destruction, and belong to the 15th century. These parts, though very charming, display generally the faults of the Scotch Flamboyant style, and show a certain amount of heaviness and clumsiness mixed with the flowing and unconstructive lines of this class of tracery, which nothing could redeem but the grace and elegance with which the French always used it.

Next in beauty to Elgin Cathedral is the well-known abbey at Melrose. This, though founded contemporaneously with Jedburgh and Kelso, was entirely rebuilt during the Lancastrian period, and, owing to its situation near the border, shows much more affinity to

the English style than the building last described. The nave, as may be seen from the view of its aisle (Woodcut No. 883), is of a bold, solid style of architecture, with a vault of considerable richness. The window of the south transept is the most elegant specimen of flowing tracery to be found in Scotland, and its great east window (Woodcut No. 884), as before remarked, is almost the only example of the Perpendicular style in the North, and is equal to anything of the kind on this side of the Tweed.



883.

Aisle in Melrose Abbey

Few of the architectural antiquities of Scotland are so well known, or have been so much admired, as the chapel at Roslyn (Woodcut No. 885), which William St. Clair caused to be erected in the year 1446.

For this purpose he did not employ his countrymen, but "brought artificers from other regions and forraigne kingdomes,"¹ and employed them to erect a building very unlike anything else to be found in Great Britain.

Our present knowledge of styles enables us to pronounce with little doubt that his architects came from the Spanish peninsula. In fact,

¹ Britton's 'Architectural Antiquities,' vol. xiv. p. 81.

there is no detail or ornament in the whole building which may not be traced back to Burgos or Belem, though there is a certain clumsiness both in the carving and construction that betrays the workmanship of persons not too familiar with the task that they were



884.

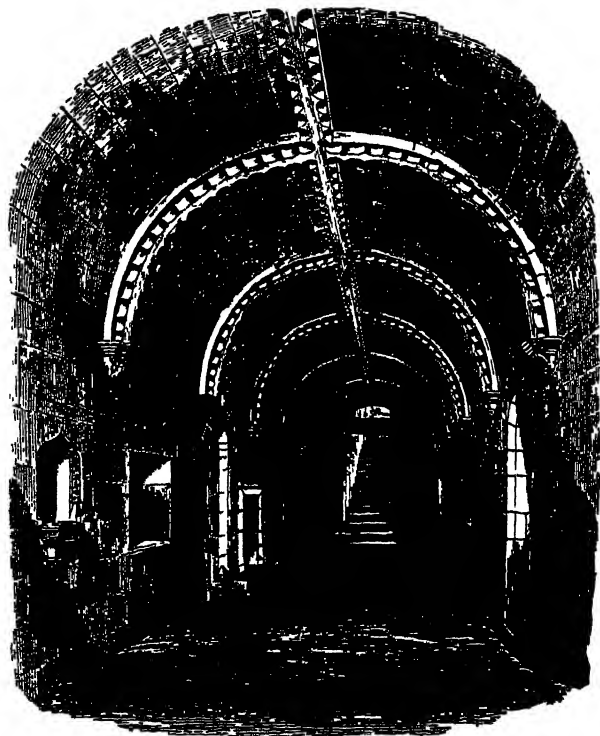
East Window, Melrose

employed upon. The building, which perhaps exhibits the greatest affinity of detail to the Chapel is the church at Belem on the Tagus, opposite Lisbon (Woodcut No. 969). Nothing, in fact, can well be more similar than the two are. That at Roslyn is the oldest, having been commenced in 1446. Belem, begun in 1498, was finished apparently in 1511, at which date the Scottish example hardly appears to have been complete. Roslyn Chapel is small, only 68 ft. by 35 ft internally. The central aisle is but 15 ft. wide, and has the Southern



885.

Chapel at Roslyn.



886.

Under Chapel, Roslyn.

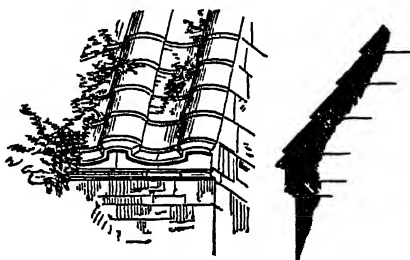
peculiarity of a tunnel-vault with only transverse ribs, such as is found at Fontfroide (Woodcut No. 553), and in almost all the old churches of the South of France. The ornaments between these, which were painted in the earlier examples, are at Roslyn carved in relief. The vault, as in the South, is a true roof, the covering slabs being laid directly on the extrados or outside of it, without the intervention of any woodwork, a circumstance to which the chapel owes its preservation to the present day. Beyond the upper chapel is a sub-chapel (Woodcut No. 886), displaying the same mode of vaulting in a simpler form, but equally foreign and unlike the usual form of vaults in Scotland

Another very interesting chapel of the same class is that now used as the church at Bothwell, near Glasgow. Like Roslyn, it has the peculiarity unknown in England, though common in the South of France, of a tunnel-vault with a stone roof resting directly upon it. It is not large, measuring only 53 feet by 22, internally. The beauty of its details, however — late in

the 14th century — and the simplicity of its outline, combined with the solidity of its stone roof, impart to the whole an air of grandeur far greater than its dimensions would justify. Had it been constructed with a timber roof, as usual in churches of its date, it would hardly be considered remarkable, but it is redeemed both internally and externally by its stone roof. As will be seen from Woodcut No. 888, the arrangement of the stones forming the roof is very elegant, and gave rise to a form of battlement frequently found afterwards in Scotland, though generally used only as an ornament.¹

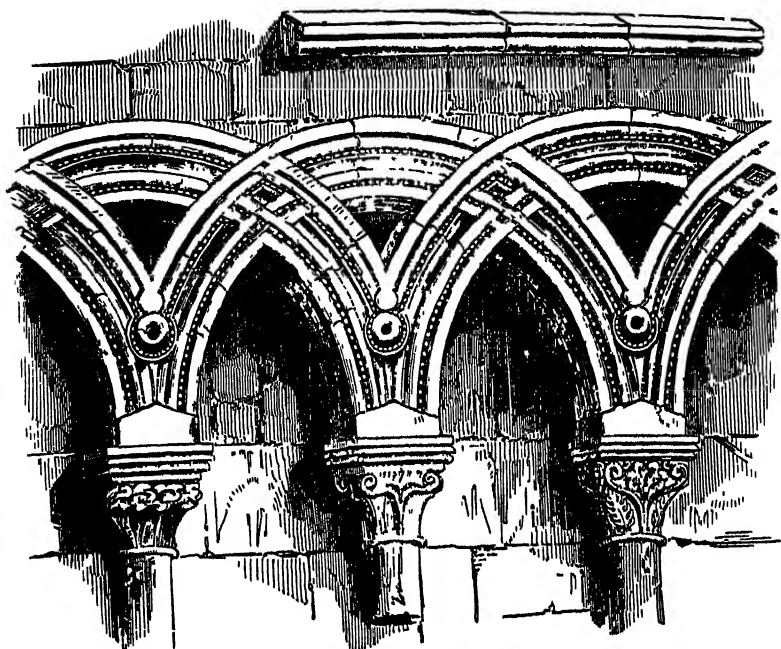


887. Stone Roof of Bothwell Church.
(From a Drawing by J. Honeyman, jun.)



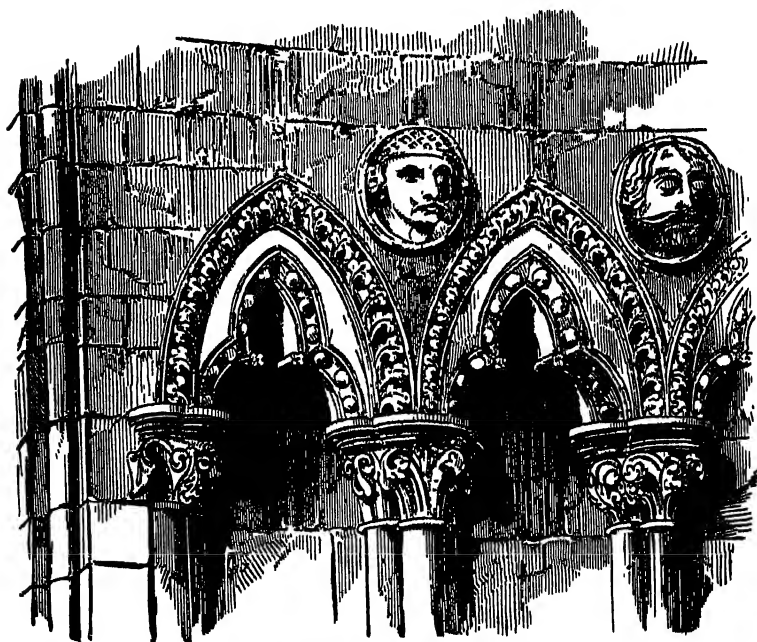
888. Exterior of Roof of Bothwell Church.

¹ For the drawings and information | debted to Mr. John Honeyman, jun.,
regarding Bothwell Church, I am in- | architect, of Glasgow.



889

Ornamental Arcade from Holyrood



890.

Ornamental Arcade from Holyrood

The chapel attached to the palace at Holyrood is of a very different character from that at Roslyn, being infinitely more beautiful, though not nearly so curious. The building was originally founded by David I. in 1128, but what now remains belongs to the latter end of the 13th or beginning of the 14th century, and has all the elegance of the Edwardian style joined to a massiveness which in England would indicate a far earlier period. Some of its details (as that shown, Woodcut No. 889) are of a beautiful transitional character, though



891.

Interior of Porch, Dunfermline.

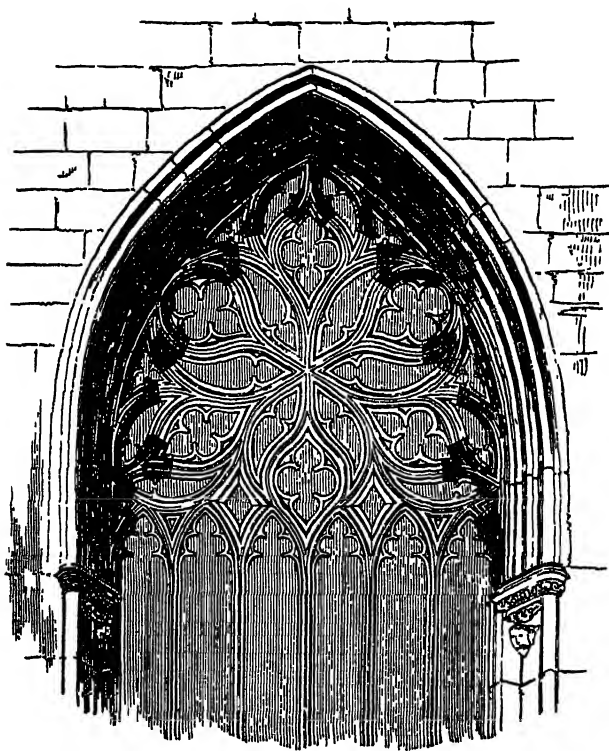
not so early as might be suspected; and others (such as Woodcut No. 890) have the rich but foreign aspect that generally characterises the architecture of Scotland

The nave of the cathedral of Aberdeen is still sufficiently entire to be used as a church, and with its twin western spires of bold castellated design is an impressive building; but it has a character of over-heaviness arising from the material used being granite, which did not admit of any of the lighter graces of Gothic art.

The cathedral of St. Andrew's must at one time have been one of

the most beautiful in Scotland, but fragments only of its east and west ends now remain. They suffice to show that it was of considerable dimensions, and inferior, perhaps, only to Elgin and Melrose in beauty of detail.

Besides these there are in Scotland many ruined monastic establishments, all evincing more or less beauty of design and detail. One of the most remarkable of these is Dunfermline, whose nave is of a bold, round-arched style, very like what Durham Cathedral would



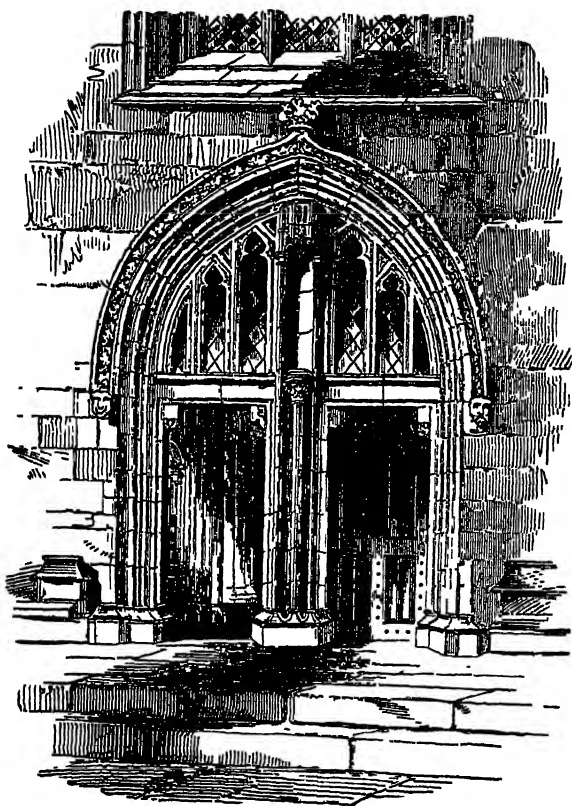
892

Window at Dunkeld (restored)

have been had it been intended (as this was) for a wooden roof. The other parts display that intermixture of styles so usual in monastic buildings, bold billeted arches, as in Woodcut No. 891, being surmounted by vaults of a much later date. But Scotch vaulting was in general so massive and rich that it requires the eye of an archæologist to detect a difference that is never offensive to the true artist. Among the remaining specimens are Dunblane, Aberbrothock, Arbroath, and Dunkeld, a window of which (Woodcut No. 892) is a fine specimen of the Scotch flamboyant, identical in design with one still existing in Linlithgow parish church, and very similar to many found elsewhere.

The west doorway in the last named church is a pleasing specimen of the half Continental¹ manner in which that feature was usually treated in Scotland.

It has already been hinted that the Scotch unwillingly abandoned the circular archway, especially as a decorative feature, and that they indeed retain it occasionally throughout the whole of the Middle Ages, though with the details of the period. The doorway illustrated in



893

Doorway, Lunithgow.

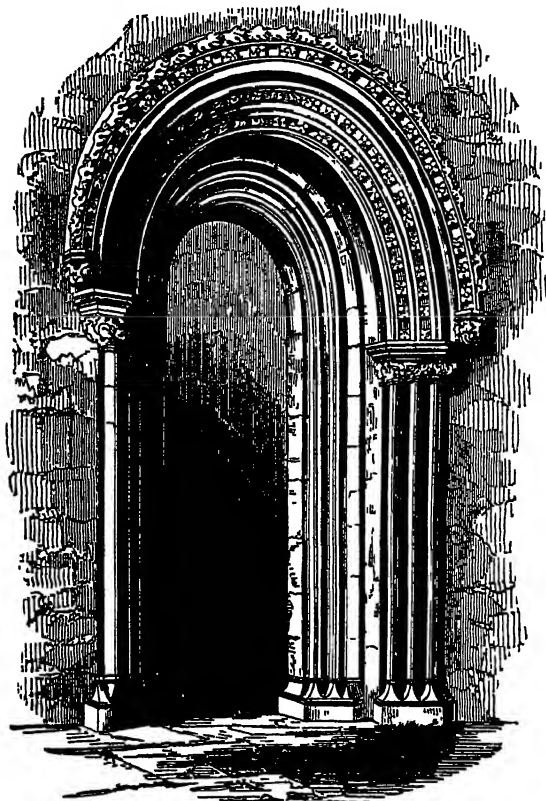
Woodcut No. 894, from St. Giles's, Edinburgh, is a fine specimen of this mode of treatment, and so is the next illustration, from Pluscardine Abbey. Similar doorways occur at Melrose and elsewhere. For canopies of tombs and suchlike purposes, the circular arch is almost as common as the pointed. Other examples are found at Iona, though there the buildings are nearly as exceptional and Continental in design as Roslyn itself—the circular pier-arch is used with the

¹ The same class of tracery is found in the Lamberti Kirche at Munster, and generally in Westphalia; some specimens being almost absolutely identical with the Scotch examples.

mouldings of the 13th century, and the pointed arch is placed on a capital of intertwined dragons, more worthy of a Runic cross or tombstone than a Gothic edifice. The tower windows are filled with a quatrefoil tracery (Woodcut No. 896), in a manner very unusual, and a mode of construction is adopted which does not perhaps exist anywhere else in Britain. The whole group, in fact, is as exceptional as its situation, and as remote from the usual modes of architecture on the mainland.

The early Scotch vaults, as already mentioned, were singularly

bold and massive, and all their mouldings were characterised by strength and vigour, as shown in the examples taken from Glasgow and Dunfermline (Woodcuts Nos. 876, 891). At a later period, however, when the English were using perpendicular tracery, and when the invention of fan-vaulting was beginning to be introduced, the Scotch, with the flamboyant tracery of the French, adopted also their weak and unconstructive modes of vaulting. It is not uncommon to find as poor a vault as that of the

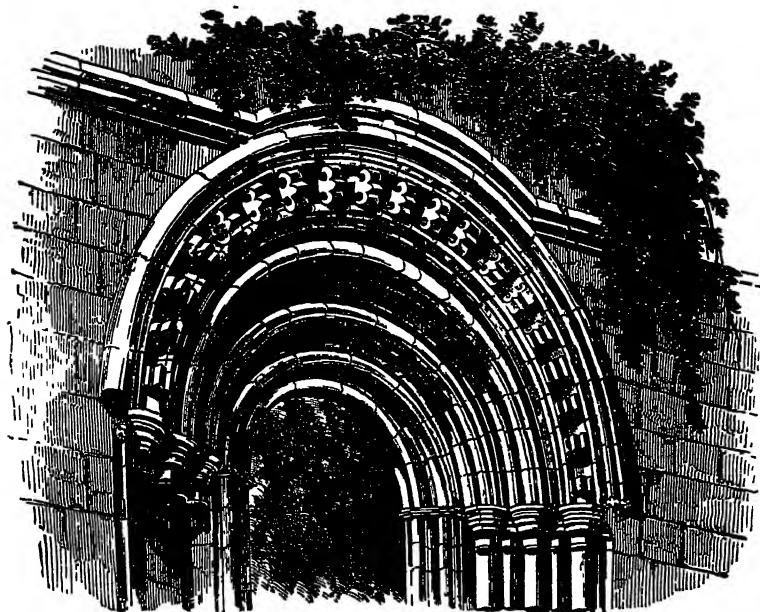


894.

Doorway, St. Giles's, Edinburgh

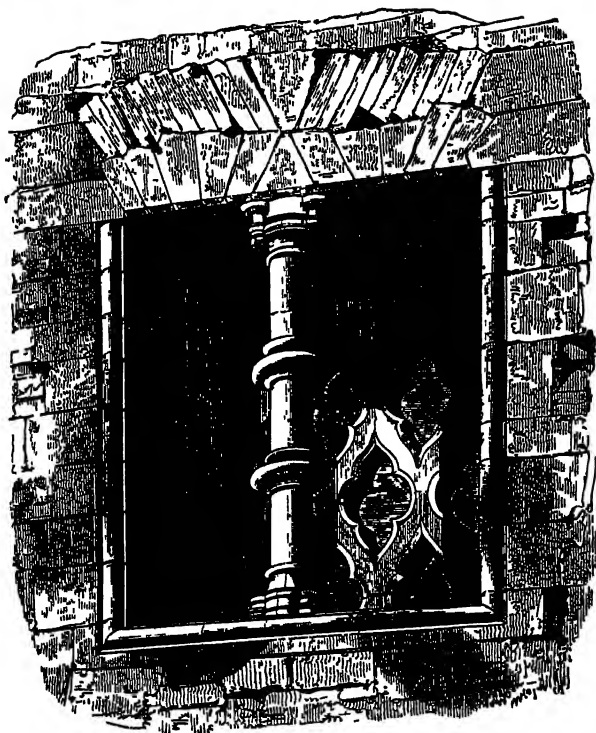
lately destroyed Trinity College Church, Edinburgh (Woodcut No. 897), erected contemporaneously with the elaborate vaulting of the royal chapels in England; and not only in this but in every other respect it is to the Continent, and not to their nearest neighbours, that we must at this late period look for analogies with the architecture of the Scotch.

Scotland is, generally speaking, very deficient in objects of civil or domestic architecture belonging to the Middle Ages. Of her palaces, Holyrood was almost rebuilt in the reign of Charles I., and Edinburgh Castle entirely remodelled. Stirling still retains some fragments of



895

Doorway, Pluscardine Abbey.



896.

Window in Tower, Iona.

ancient art, and Falkland seems on the verge of the Renaissance. Linlithgow perhaps alone remains in its original state, a fine specimen of a fortified palace, with bold flanking towers externally, and a noble courtyard in the centre.

There are, besides these, numberless square towers and fortalices scattered over the country, which were the residences of the turbulent barons of Scotland during the Middle Ages, but none of these can properly be called objects of architecture.



597.

Aisle in Trinity College Church, Edinburgh.

The baronial edifices of the succeeding age give the impression of belonging to an earlier style, which was retained in this wild country long after it had been laid aside elsewhere. They are as remarkable as any class of buildings erected after the Middle Ages, both for originality and picturesqueness. But they were, with scarcely an exception, built after the accession of Elizabeth to the throne of England, and all, when closely examined, display features belonging to the Renaissance style. Their description would therefore be more appropriate in a subsequent volume than in a chapter devoted to the Gothic architecture of Scotland.

CHAPTER V.

IRELAND.

CONTENTS.

Oratories—Round Towers—Domical Dwellings—Domestic Architecture—
Runic Cross Decoration.

THE history of architecture in Ireland forms as distinct a contrast to that of Scotland as it is possible to conceive. At a very early period the Irish showed themselves not only capable of inventing a style for themselves, but perfectly competent to carry it to a successful issue, had an opportunity ever been afforded them. But this has not yet happened. Before the English conquest (1169) the country seems to have been divided into a number of small states, whose chieftains occupied the scant leisure left them between the incursions of the Danes and other Northmen, in little wars among themselves. These were never of such importance as to yield glory to either party, though amply sufficient to retard the increase of population and to banish that peace and sense of security which are indispensable for the cultivation of the softer arts. Yet during that period the Irish built round towers and oratories of a beauty of form and with an elegance of detail that charm even at the present day. Their metal work showed a true appreciation of the nature of the material, and an artistic feeling equal in kind, if not in degree, to anything in the best ages of Greece or Italy; and their manuscripts and paintings exhibit an amount of taste which was evidently capable of anything.

After the conquest, the English introduced their own pointed architecture, and built two churches in Dublin which, in dimensions and detail, differ very little from English parish churches. But beyond the Pale their influence was hardly felt. Whatever was done was stamped with a character so distinctly Irish as to show how strong the feeling of the people was; and sufficient to prove, with our knowledge of their antecedents, how earnestly and how successfully they would have laboured in the field of art had circumstances been favourable to its development. For seven centuries, however, the two races have lived together, hating and hated, and neither capable of comprehending the motives or appreciating the feelings of the other. It was not that

the Saxon was tyrannical or unjust, but that he was prosaic among a people whose imagination too often supplied the place of reason, and that he was strong among those who could not combine for any steady purpose. His real crime was that, like the leopard, he could not change his spots. He belonged to a different race, and the Irish have always chosen to cherish the idea of vengeance and suffer the derangement consequent on it, rather than enjoy peace and prosperity under those they hated. Art is a plant too tender to flourish in the garden of hatred, and it has consequently been long banished from Irish soil, though, under gentler influences, it is probable that it might be more easily revived and more successfully cultivated there than in any other part of the British Isles.

Whatever may be the fate of art in Ireland for the future, the history of the past is sufficiently discouraging.

The cathedral of Dublin must always have been a second-class edifice for a metropolitan church, and those of Cashel and Kildare, which are as celebrated and as important as any in Ireland, are neither so large nor so richly ornamented as many English parish churches. The cathedral of Lismore has entirely disappeared; and generally it may be asserted that, throughout the country, there is not one cathedral church remarkable for architectural beauty or magnificence, though many are interesting from their associations, and picturesque from the state of ivy-clad ruin in which they appear.

The same is true with regard to the monasteries—they are numerous, and many, though small, are rich in detail. One of the most elaborate is that of the Holy Cross near Cashel, erected in the 15th century. This, like every other building of the Gothic period in Ireland, shows a strong affinity to the styles of the Continent, and a clearly marked difference from those of this country.

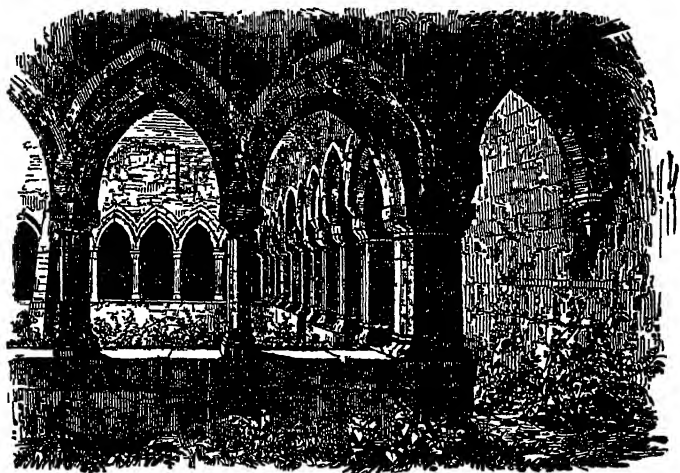
Some of the monasteries still retain their cloisters, which, in all instances, have so foreign an aspect as to be quite startling. That at Muckross (Killarney) retains the round arch on two sides with the details of the 15th century. That at Kilconnel (Woodcut No. 662)¹ looks more like a cloister in Sicily or Spain than anything in the British Islands. None of them seem large. The last named is only 48 ft. square, though, if more extensive, it would be out of place compared with the rest of the establishment.

There is scarcely a single parish church of any importance which was built in Ireland beyond the limits of the Pale during the Middle Ages, nor, indeed, could it be expected that there should be. The parochial system is singularly unsuited to the Celtic mind at all times, and, during the Gothic period, the state of Ireland was especially unfavourable to its development, even if any desire for it had existed.

¹ The woodcuts in this chapter are, with one or two exceptions, borrowed from Wilkinson's 'Ancient Architecture and Geology of Ireland.'

What the Celt desiderates is a hierarchy who will take the trouble of his spiritual cares off his hands, and a retreat to which he can retire for repose when the excitement of imagination no longer suffices to supply his daily intellectual wants. These may lead to a considerable development of cathedral and monastic establishments, but not to that self-governing parish system which is so congenial to the Saxon mind.

View it as we will, the study of the Mediæval architecture of Ireland is a melancholy one, and only too truly confirms what we know from other sources. It does not even help us to answer the question whether or not Ireland could successfully have governed herself if left



898

Clouster, Kilconnel Abbey

alone. All it does tell us is that, from the accidental juxtaposition of two antagonistic races, one of them has certainly failed hitherto in fulfilling the artistic mission which, under favourable circumstances, it seems eminently qualified to perform.

From these causes, the Mediæval antiquities of Ireland would not deserve much notice in a work not specially devoted to that one subject, were it not that, besides these, Ireland possesses what may properly be called a Celtic style of architecture, which is as interesting in itself as any of the minor local styles of any part of the world, and, so far as at present known, is quite peculiar to the island. None of the buildings of this style are large, though the ornaments on many of them are of great beauty and elegance. Their chief interest lies in their singularly local character, and in their age, which probably extends from the 5th or 6th century¹ to the time of the English conquest in 1169. They consist principally of churches and round towers,

¹ No buildings with architectural details in them are known prior to 1000 A.D.

together with crosses and a number of other antiquities hardly coming within the scope of this work

No Irish church of that period now remaining is perhaps even 60 ft. in length, and generally they are very much smaller, the most common dimensions being from 20 to 40 ft. long. Increase of magnificence was sought to be attained more by extending the number of churches than by augmenting their size. The favourite number for a complete ecclesiastical establishment was 7, as in Greece and Asia Minor, this number being identical with that of the 7 Apocalyptic Churches of Asia. Thus, there are 7 at Glendalough and 7 at Cashel, the same sacred number is found in several other places,¹ and generally two or three at least are found grouped together.

As in Greece, too, the smallness of the churches is remarkable. They were not places for the assembly of large congregations of worshippers, but were oratories, where the priests could celebrate the divine mysteries for the benefit of the laity. In fact, no church is known to have existed in Ireland before the Norman Conquest that can be called a basilica, none of them being divided into aisles either by stone or wooden pillars, or possessing an apse, and no circular church has yet been found—nothing, in short, that would lead us to believe that Ireland obtained her architecture direct from Rome; while everything, on the contrary, tends to confirm the belief of an intimate connection with the farther East, and that her earlier Christianity and religious forms were derived from the East, by some of the more southerly commercial routes which at that period seem to have touched on Ireland.

A good deal of uncertainty and even of ridicule has been thrown on the subject of the Eastern origin of the Irish Church by the extreme enthusiasm of its advocates, but there seems to be no reasonable ground for doubting the fact.² At all events, it may safely be asserted that

¹ Seven churches are also found at Scattery and Inis Caltra in Clare, Tory Island, Donegal, Rattoo in Kerry, Inchelorn, Longford, and Arranmore in Galway

² The Rev Professor Stokes, in a paper communicated to the Royal Society of Antiquaries in Ireland, and published in their Journal, 1891, states. "The connexion with Egypt of the Celtic Church of these Western Islands of Britain, as well as of Ireland, cannot now be controverted." He points out that the object of the ancient monks of the 5th and 6th centuries was "not to draw large assemblies, but to get as far away from them as possible; and assuredly they selected a lonely if not a weird spot when they selected the Skelligs." The

Professor gives a long list of places where specimens of these island monasteries can be found; the best example still existing being that of Incheleraun in Lough Ree, and commonly called Quaker Island, some ten miles above Athlone, where six or seven tiny churches just like those of Clonmacnoise (Woodcut No 904) or Glendalough (Woodcut No 902) still perpetuate the name of St Dermot or St Diarmaid, the teacher of St Kieran, and a Celtic saint and doctor who lived just after the days of St Patrick and St Bridget. The monastic cells at the Skelligs, which are known as beehive huts, are sometimes square and sometimes circular in plan, in both cases covered with domical roofs

the Christian religion did not reach Ireland across Great Britain, or by any of the ordinary channels through the Continent. As a corollary to this, we must not look for the origin of her architectural styles either in England or in France, but in some more remote locality whose antiquities have not yet been so investigated as to enable us to point it out as the source whence they were derived.

The Irish Celtic churches are generally rectangular apartments, a little longer than they are broad, like the small one on the island of Innisfallen on the lake of Killarney (Woodcut No. 663). To the larger churches a smaller apartment of the same proportions is added to the eastward, forming a chancel, with an ornamental arch between the two.

The most remarkable of these now existing is that known as



899.

Oratory, Innisfallen, Killarney.

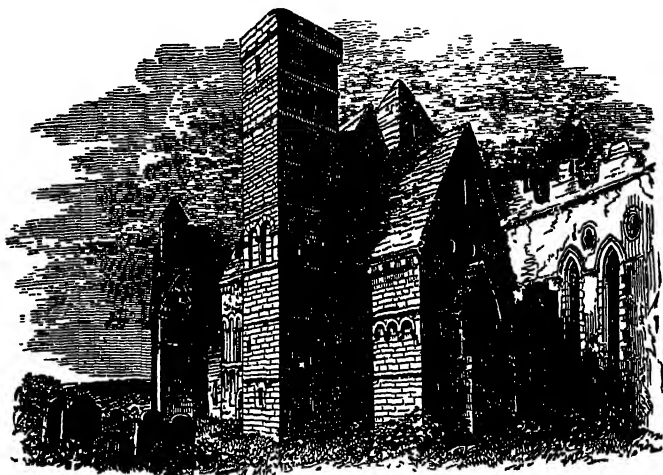
Cormac's Chapel, on the rock at Cashel (Woodcut No. 900), which was consecrated in the year 1134. It is a small building, 55 ft. long over all externally. The chancel is 12 ft. square internally, covered with an intersecting vault; the nave is 18 ft. by 29, and covered by a tunnel-vault with transverse ribs, very like those found in the South of France. Externally, as shown in the view, it has two square towers attached to it at the juncture of the nave and chancel, while the church itself is richly ornamented by a panelling of small arches.

In almost all cases the principal entrance to these churches is from

of stone laid in horizontal courses similar to the Treasury of Atreus (Woodcut No. 124). In some cases those chambers are so limited in height and width that it is possible neither to stand upright nor lie down in them with ease. These beehive huts are apparently the proto-

types of the oratories which, though rectangular in plan, are, like the Oratory of Gallerus (Woodcut No. 917) and St. Kevin's Kitchen, Glendalough (Woodcut No. 902), covered with roofs of stone all laid in horizontal courses—Ed.

the west, opposite to the altar. The chapel at Cashel is, however, an exception, since it has both a north and a south entrance. That on the north is the principal, and very richly ornamented. The same is the

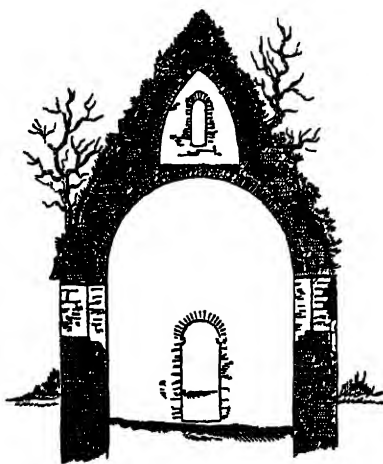


900

Cormac's Chapel, Cashel.

case at Ardmore, where the whole of the west end is taken up by a bas-relief rudely representing scenes from the Bible, and the entrance is on the north side of the nave. On these principal entrances all the

resources of art were brought to bear, the windows generally being very small, and apparently never glazed. There is a doorway at Freshford in Kilkenny, and another at Aghadoe near Killarney, which for elegance of detail will bear comparison with anything in England or on the Continent of the same age.



901.

Section of Chapel, Killaloe.

One of the peculiarities of these churches is, that they were nearly all designed to have stone roofs, no wood being used in their construction. The annexed section (Woodcut No.

901) of the old church at Killaloe, belonging probably to the 10th century, will explain how this was generally managed. The nave was roofed with a tunnel-vault of the ordinary form; over this is a chamber formed by a pointed arch, and on the outside of these two,

the roofing slabs were laid. Sometimes, instead of being continuous, the upper vault was cut into ribs, and the roof built up straight externally, with horizontal courses resting on these ribs. This mode of double roofing was, perhaps, a complication, and no improvement on that adopted in the South of France in the same age (Woodcuts Nos 312, 319), but it enabled the Irish to make the roof steeper than could be effected with a single vault, and in so rainy a climate this may have been of the first importance

The roof of the Cashel Chapel is of this double construction ; so is the building called " St. Kevin's Kitchen " at Glendalough (Woodcut



902

St. Kevin's Kitchen Glendalough.

No. 902), which apparently belongs to the 10th century. There is another very similar at Kells, and several others in various parts of Ireland, all displaying the same peculiarity.

Had the Irish been allowed to persevere in the elaboration of their own style, they would probably have applied this expedient to the roofing of larger buildings than they ever attempted, and might, in so doing, have avoided the greatest fault of Gothic architecture. Without more experience, it is impossible to pronounce to what extent the method might have been carried with safety, or to say whether the Irish double vault is a better constructive form than the single Romance pointed arch. It was certainly an improvement on the wooden roof of the true Gothic style, and its early abandonment is consequently much to be regretted.

ROUND TOWERS AND ORATORIES.

The round towers which accompany these ancient churches have long proved a stumbling-block to antiquaries, not only in Ireland but in this country, and more has been written about them, and more theories proposed to account for their peculiarities, than about any other objects of their class in Europe.

The controversy has been, to a considerable extent, set at rest by the late Mr George Petrie¹ He has proved beyond all cavil that the greater number of the towers now existing were built by Christians, and for Christian purposes, between the 5th and 13th centuries, and has shown that there is no reasonable ground for supposing the remainder to be either of a different age or erected for different uses.

Another step has recently been made by Mr. Hodder Westropp, who has pointed out their similarity with the *Fanal de Cimetière* so frequently found in France,² and even in Austria (Woodcut No. 765).

To any one who is familiar with the Eastern practice of lighting lamps at night in cemeteries or in the tombs of saints, this suggestion seems singularly plausible when coupled with the knowledge that the custom did prevail on the Continent in the Middle Ages. It is, however, far from being a complete explanation, since many of these towers have only one or two very small openings in their upper storey; and there is also the staggering fact that this use is not mentioned in any legendary or written account of them which has come down to our time. On the other hand, they are frequently described as bell-towers, and also as treasuries and places of refuge, and seem even better adapted to these purposes than to that of displaying lights.

That they may have been applied to all these purposes seems clear, but a knowledge of their use does not explain their origin; it only removes the difficulty a step farther back. No attempt has been made to show whence the Irish obtained this very remarkable form of tower, or why they persevered so long in its use, with peculiarities not found either in the contemporary churches or in any other of their buildings. No one imagines it to have been invented by the rude builders of the early churches, and no theory yet proposed accounts for the perseverance of the Irish in its employment, at a time when the practice of all the other nations of Europe was so widely different. It must have been a sacred and time-honoured form somewhere, and with some people,

¹ 'The Ecclesiastical Architecture of Ireland anterior to the Anglo-Norman Invasion.' Dublin, 1845.

² See Viollet le Duc, 'Dictionnaire d'Architecture,' sub "*fanal*."

previous to its current adoption in Ireland, but the place and the time at which it was so, still remain to be determined ¹

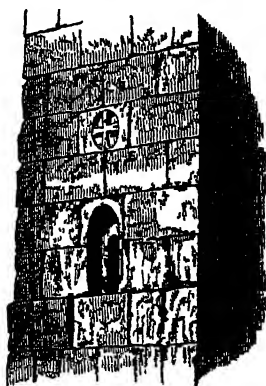
Although, therefore, Mr Petrie's writings and recent investigations have considerably narrowed the grounds of the inquiry, they cannot be said to have set the question at rest, and anyone who has seen the towers must feel that there is still room for any amount of speculation regarding such peculiar monuments.

In nine cases out of ten they are placed unsymmetrically at some little distance from the churches to which they belong, and are generally of a different age and different style of masonry. Their openings, from the oldest to the most modern, generally have sloping jambs, which are very rare in the churches, being only found in the earliest examples. Their doorways are always at a height of 7, 10, or 13 ft. from the ground, while the church doors are, it need hardly be said, always on the ground level. But more than all this, there is sometimes an unfamiliar aspect in the detail of the towers which is not always observed in the churches. The latter may be rude, or may be highly finished, but they rarely have the strange and foreign appearance which the towers always present.

Notwithstanding this, the proof of their Christian origin is in most cases easy. Woodcut No 902, for instance, shows a round tower placed *upon* what is, undoubtedly, a Christian chapel, and which must consequently be either coeval with the tower or more ancient. At Clonmacnoise (Woodcut No 904) the masonry of the tower is bonded with the walls of the church, and evidently coeval therewith, the

¹ One of the towers in the East that bears most directly on the history of these Irish towers is that discovered by Dr Tristram near Um Rasas. It is described and figured at page 145 in his work on the 'Land of Moab,' but unfortunately the woodcut is taken from the side that does not represent the doorway with the cross over it so like that at Antrim (Woodcut No 907), and elsewhere. Like most of the Irish examples, it is situated at about 10 ft from the ground. There is no other opening to the tower, except one on each face at the top. It has also the peculiarity that it stands free but close to a small cell or chapel, as is the case with almost all the Irish towers. The one point in which it differs from the Irish examples is that its plan is square instead of being circular. This does not seem so important as it at first sight may appear, seeing how many circular minarets were afterwards erected in

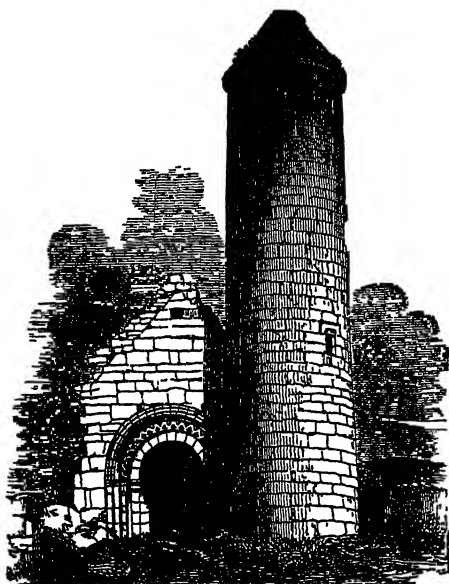
the East, which must have had a model somewhere. Practically, therefore, this



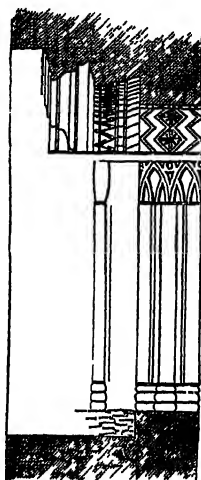
903. Doorway in Tower at Um Rasas.
(From a Photograph.)

Moabite tower may be described, *Hibernicæ*, as a square Irish round tower.

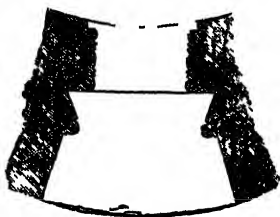
chancel arch being undoubtedly Christian round Gothic of the 10th or 11th century. At Kildare the doorway of the tower (Woodcut No 905) is likewise of unquestionable Christian art, and an integral part of the design, though it may be somewhat earlier than the foregoing, and at Timahoe the doorway of the tower is richer and more elaborate, but at the same time of a style so closely resembling that of Cormac's Chapel as to leave no doubt of their being nearly of the same age. The only remarkable difference is that the jambs of the doorway of the tower slope considerably inwards, while all those of the chapel are perfectly perpendicular. Another proof of their age is, that many of the doorways have Christian emblems carved in *relief* on their lintels, as in the



904 Round Tower and Chancel Arch of Fineens Church, Clonmacnoise



SECTION



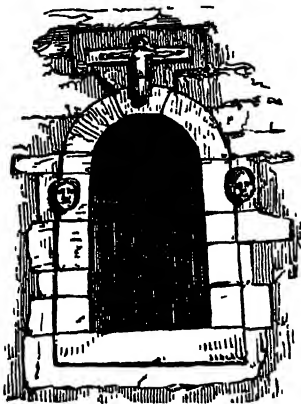
PLAN

905. Doorway in Tower, Kildare.

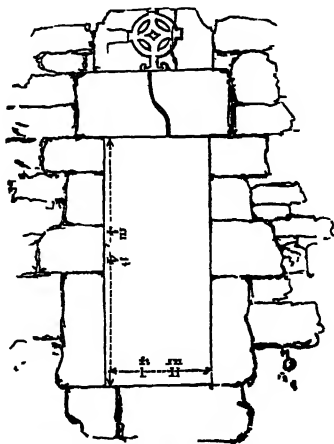
example from the tower at Donoughmore (Woodcut No. 906), or that from Antrim (Woodcut No 907), or on the round tower at Brechin in Scotland,—emblems which, from their position, and the fact of their being in relief, cannot have been added, and must therefore be considered as original. When we find that the towers which have not these indications differ in no other respect from those that have, it is impossible to resist the conclusion that they too are of Christian origin; the positive evidence of a few being sufficient to overbalance the mere absence of a proof in a far greater number.

Antiquaries have enumerated 118 of these monuments as still to be

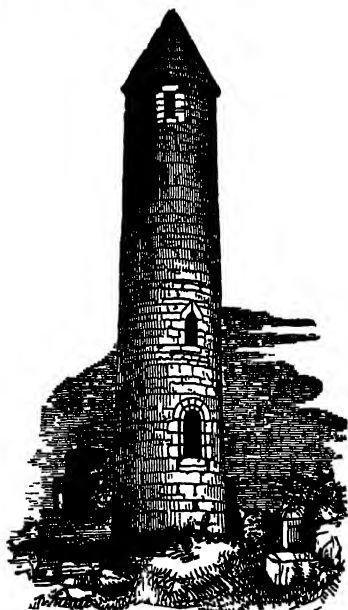
found in Ireland, of these some twenty are perfect, or nearly so, varying in height from about 60 ft to 130 ft, which is the height of the imperfect one at Old Kilcullen. They all taper upwards towards



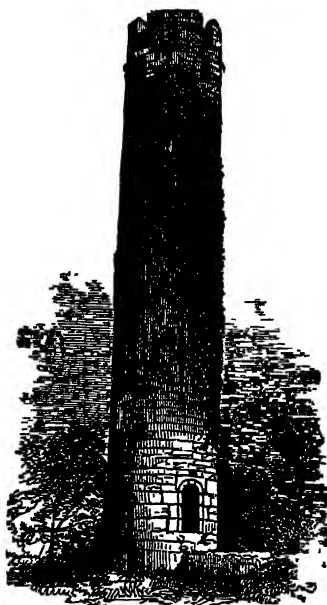
906. Doorway in Tower, Donoughmore, Meath.



907. Doorway in Tower, Antrim.



908. Tower, Devenish.



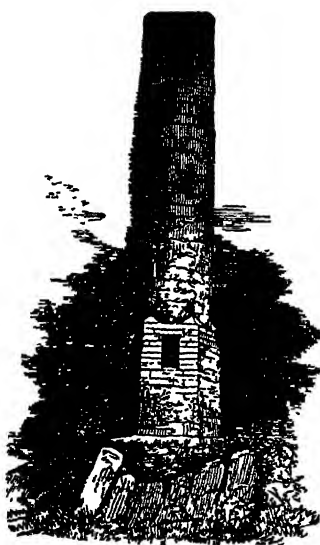
909. Tower, Kilree, Kilkenny.

the summit, and are generally crowned with a conical cap like that at Clonmacnoise (Woodcut No 904), though not often constructed in the herring-bone masonry there shown

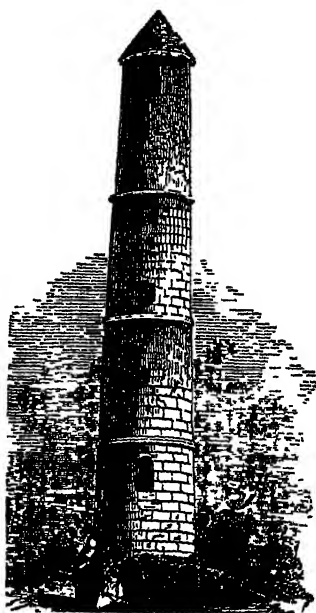
The tower of Devenish (Woodcut No. 908) may be taken as a

typical example of the class. It is 82 ft. high, with a conical cap, and its doorway and windows are all of the form and in the position most usually found in monuments of this class. The conical cap is sometimes omitted, and its place supplied by a battlemented crown, though this is probably of later date; this is the case at Kildare, and also at Kilree (Woodcut No. 909). In one instance, and, I believe, one only, the base of the tower is octagonal. This is found at Kinneh, county Cork (Woodcut No. 910)¹

One of the most beautiful and most perfect is that of Ardmore (Woodcut No. 911). It is of excellent ashlar masonry throughout, and



910. Tower, Kinneh, Cork.



911. Tower, Ardmore.

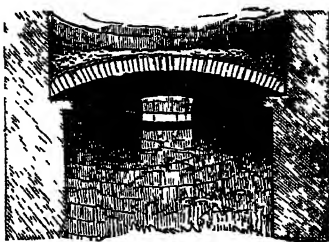
is divided externally into 4 storeys by string-courses, which do not, however, mark the position of the floors inside. Its mouldings and details lead to the presumption that it is nearly coeval with Cormac's Chapel, Cashel, and that consequently it must belong to the 12th century. It stands within the precincts of the rude old church mentioned above, and when explored not long ago the skeletons of two persons were found below its foundations, placed in such a manner as to lead to the inevitable conclusion that it was a place of Christian burial before the foundations of the tower were laid.

The floors which divide the tower into storeys are generally of wood,

¹ Compare this with the contemporary tower at Ghazni, in the chapters on Saracenic Architecture in India in vol. iii.

but sometimes of masonry, constructed as that at Kinneh (Woodcut No. 912). There are no stairs, but ladders are used to pass from one storey to the next

Several instances of doorways have been quoted above. Of these no two are exactly alike, though all show the same general characteristics. That at Monasterboice, for instance (Woodcut No. 913), has an arch cut out of a horizontal lintel extending the whole way across, while that at Kilcullen (Woodcut No. 914) has the arch cut out of two stones, which is by far the most usual arrangement.



912 Floor in Tower, Kinneh.

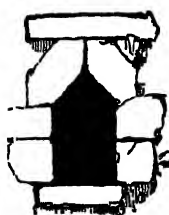
The windows are generally headed with two stones meeting at the apex, as in the three examples given below (Woodcut No. 915), but sometimes the window-head is either a flat lintel or a single stone cut into the form of an arch, as at Glendalough (Woodcut No. 916)



913. Doorway, Monasterboice



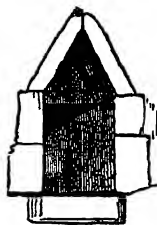
914. Doorway, Kilcullen, Kildare.



915.



Windows in Round Towers



916. Window, Glendalough.

Though these remarkable towers are of extremely various forms, differing according to their age and locality, almost all exhibit that peculiar Cyclopean character of masonry which has led to such strange,

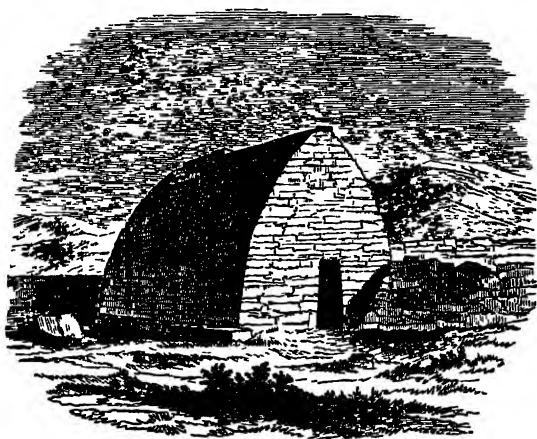
though often plausible, speculations, for though neither their details, nor their masonry would excite remark if found at Norba in Latium or at Æniade in Acarnania, yet here they stand alone and exceptional to everything around them.

Whatever may have been their origin, there can be no doubt as to the uses to which they were applied by the Christians—they were symbols of power and marks of dignity. They were also bell-towers, and lamps were possibly lighted in them in honour of the dead. But perhaps their most important use was that of keeps or fortalices, to which, in troubled times, the church plate and other articles of value could be removed and kept in safety till danger was past.

As architectural objects these towers are singularly pleasing. Their outline is always graceful, and the simplicity of their form is such as to give the utmost value to their dimensions. Few can believe that they are hardly larger than the pillars of many porticoes, and that it is to their design alone that they owe that appearance of size they all present. No one can see them without admiring them for these qualities, though the peculiar fascination they possess is no doubt in great measure owing to the mystery which still hangs round their origin, and to the association of locality. In almost every instance the tower stands alone and erect beside the ruins of an ancient but deserted church, and among the mouldering tombstones of a neglected or desecrated graveyard. In a town or amid the busy haunts of men, they would lose half their charm, situated as they are, they are among the most interesting of the antiquities of Europe.

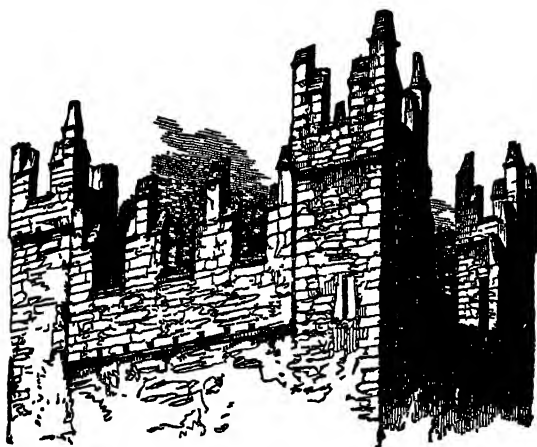
There is still another class of antiquities in Ireland, older perhaps than even these round towers, and certainly older than the churches to which the towers are attached. These are the circular domical dwellings found in the west of the island, constructed of loose stones in horizontal layers approaching one another till they meet at the apex, like the old so-called treasuries of the Greeks, or the domes of the Jains in India. Numbers of these are still to be found in remote parts, sometimes accompanied by what are properly called oratories, like that shown in Woodcut No. 917, taken from Mr. Petrie's valuable work. It is certainly one of the oldest places of worship in these islands, belonging probably to the age of St. Patrick; and it is also one of the smallest, being externally only 23 ft. by 10. It shows the strange Cyclopean masonry, the sloping doorway, the stone roof, and many of the elements of the subsequent style, and it is at the same time so like some things in Lycia and in India, and so unlike almost any other building in Europe, that it is not to be wondered at that antiquaries should indulge in somewhat speculative fancies in endeavouring to account for such remarkable phenomena.

Ireland is not rich in specimens of domestic architecture of the Middle Ages, but such fragments as do exist show marked variations from the contemporary style in England. Such battlements, for



917. Oratory of Gallerus. (From Petrie's 'Ancient Architecture of Ireland'.)

instance, as those which crown the tower of Jerpoint Abbey are identical with many found in the North of Italy, but very unlike any-



918. Tower, Jerpoint Abbey.

thing either in England or Scotland, and give a foreign look to the whole building which is very striking.

The same may be said of the next example (Woodcut No. 919) from a house in Galway. Its architecture might be Spanish, but its ornamental details look like a reminiscence of the entwined decoration

of a Runic cross, and reminds one more of the interlaced work of the Byzantine style than of any other ¹

Ballyromney Court, illustrated in Woodcut No 920, is perhaps the



919.

House, Galway.

most usual form of an Irish mansion in the last age of Gothic. After its time the Elizabethan became the prevalent style. All individuality



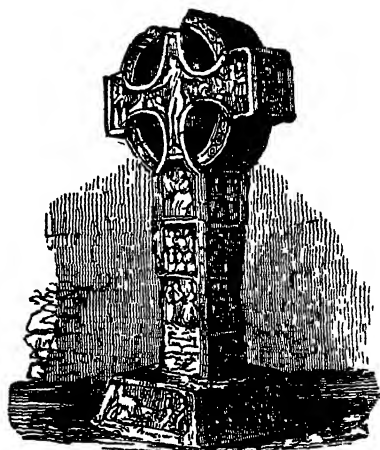
920.

Ballyromney Court, Cork.

vanished with the more complete subjection of the country in the reign of that queen. This is, no doubt, to be regretted; but, as before

¹ Numerous examples of Byzantine interlaced work of all periods will be found in Cattaneo's work 'On the Influence of Byzantine Art in Italy from the 5th to the 11th centuries.'

remarked, Ireland is interesting, not for her Gothic so much as for her Celtic antiquities, the epoch of which closed as nearly as may be with the English conquest in 1169.



321.

Cross at Kells.

BOOK VIII.

SPAIN AND PORTUGAL.

CHAPTER I.

INTRODUCTORY.

SPAIN.

INTRODUCTION.

CHRONOLOGY.

	DATE		DATE.
Gothic Conquest—Athulf	A.D. 411	Alphonso III.—conquest of Toledo . .	A.D. 1085
Moorish conquest	711	Conquest of Cordova	1226
Kingdoms of Navarre and Arragon established, about	780	„ „ Valencia	1248
Sancho I, King of Castille	1005	„ „ Seville and Murcia	1243
Alphonso VI unites all Northern Spain into one kingdom	1072	Ferdinand el Santo died	1252
Henry de Besançon—foundation of kingdom of Portugal	1095	Alonso el Sabio	1252-1284
		Pedro the Cruel	1350-1369
		Ferdinand and Isabella	1474-1516
		Conquest of Granada	1492

SPAIN is one of those countries regarding the architecture of which it is almost as difficult to write anything consecutive as regarding that of Scotland. This does not arise from the paucity of examples nor from their not having been examined and described, but from the same cause as was insisted upon in speaking of Scotch art, that the style was not indigenous, but borrowed from other nations, and consequently practised far more capriciously than if it had been elaborated by the Spaniards themselves.

In the very early ages of their architectural history we do find the inhabitants of the Peninsula making rude attempts to provide themselves with churches. These, however, were so unsuited for their purposes that so soon as returning prosperity put the Spaniards in a

position to erect larger edifices, they at once fell into the arms of the French architects, who had advanced far beyond them in the adaptation of classical materials to Christian purposes. When tired of the French styles, they enlisted the Germans to assist them in supplying their wants, and Italy also contributed her influence, though less directly than the other two. In the mean time the Moors were more steadily elaborating their very ornate but rather flimsy style of art in the southern part of the Peninsula, and occasionally contributed workmen and ideas whose influence may be traced almost to the foot of the Pyrenees. When all this passed away with the Middle Ages, they borrowed the Renaissance style of the Italians, but used its Doric and Corinthian details more literally and with less adaptation, than any other nation. With these classical materials they erected churches which were larger and more gorgeous than those of the previous styles, and admired them with the same unreasoning devotion they had bestowed on their predecessors.

So far as we at present know, this peculiarity is unique in the history of architecture. Some nations are content to worship in barns, or to dispense with temples altogether. It is not, therefore, surprising that they should have no architecture, or should throw it aside as the Scotch did the moment they could shake off its trammels. But the Spaniards loved art. They delighted in the display of architectural magnificence, and indulged in pomp and ceremonial observances beyond any other people on the Continent.

The singularity is, that though endowed with the love of architecture, and an intense desire to possess its products, nature seems to have denied to the Spaniard the inventive faculty necessary to enable him to supply himself with the productions so indispensable to his intellectual nature. We can perfectly understand how, among so Teutonic a people as the Scotch, architecture should be found planted in an uncongenial soil and perish with the first blast of winter; but what seems unique is that, planted where both the soil and climate seem so thoroughly congenial as they do in Spain, it should still remain exotic and refuse to be acclimatised.

If we knew who the Spaniards were we might be able to explain these phenomena, but we know so little of the ethnography of Spain that at present this source of information is not available. The term "Iberian" hardly conveys a distinct idea to the mind. The first impulse is to say they must have been Turanian; but, if so, where are their tombs? Few tumuli or rude-stone monuments exist in Spain, and fewer traces of sepulchral rites or ancestral worship, and these have been so imperfectly described that it is difficult to reason regarding them, but unless they do exist we are safe in asserting that no Turanian people lived in historic times in Spain. From history we know that the Phœnicians occupied the coast-line at least all round

the southern part of the Peninsula, and their settlements probably penetrated some way into the interior. The facility with which the Moors conquered and colonised the country, is in itself sufficient to prove that a people of cognate race had occupied the land long before they came there; but this hardly helps us, for neither the Phœnicians nor any of the Semitic races were ever builders, and we look in vain in Spain or at Carthage, or at Tyre or Sidon, for anything to tell us what their architecture may have been. The Goths who invaded Spain in the beginning of the 5th century must have been of Teutonic race, Aryans *pur sang*, for they have not left a building or a tradition of one, and they therefore can hardly have influenced the style of their successors in the Peninsula. Even the Moors were scarcely an architectural people in the proper sense of the term. Their mosques were, so far as we know them, made up of fragments of classical temples arranged without art or design. Their palaces were ornamented with plaster work of the most admired complexity of design, coloured with the most exquisite harmony, but all this was the work of the ornamentalist, hardly of the architect. It was perfectly suited to the wants of an elegant and refined Oriental race, but most ill adapted to the wants of a hardy race of mountaineers struggling for freedom against the invaders of their birthright. The Celtic element must have been the one wanting in this "olla podrida" of nations to fuse the whole together, and to give the arts that impulse which in Spain was always wanting.¹ All the other elements they seem to have possessed, but the absence of this single one prevented them from attaining that unity which would enable us to follow their story with the same interest which we feel in tracing the development of the arts in France or England. Notwithstanding this, however, it must be confessed that the result in Spain is frequently grand, and even gorgeous, though never quite satisfactory.

The periods of Gothic architecture in Spain coincide in age very nearly with those in this country; far more nearly than with France or Italy, or any other nation. Before the era of the Cid (1066-1099), which was coincident with that of William the Conqueror, there existed a style similar in importance and character to our Saxon style. Thus the Spaniards call "obras de los Godos," and the term may be practically correct, but it would confuse our nomenclature to call it the "Gothic" of Spain. "Asturian" or "Catalonian" might nearly describe it, but for the present some such indefinite description as "Early Spanish" must suffice.

In the latter half of the 11th century it was overwhelmed, as in this country, by a wholesale importation of French designs. These continued to be employed, as if no Pyrenees existed for about a

¹ Consult the Appendix, note 14.

century, with the round arch in all the decorative features, but with an occasional tendency to employ the pointed arch in construction.

By degrees this round-arched style grew into an early pointed Spanish, which, like our own lancet, is more national and more characteristic than any other phase of the art, and, like it, seems to have been more cherished and for a longer time. In the beginning of the 13th century a new set of French patterns were introduced; but while French cathedrals with geometric tracery were being erected at Toledo, Burgos, and Leon, in the provinces they continued to adhere to the simpler and more solid forms of the earlier style.

During the 14th century the French style reigned supreme, with only a slight touch of local feeling and a slight infusion of Moorish details in parts, till in the 15th it broke away from its prototype into a style half German, half Spanish, with all the masonic cleverness so fatal to the style in Southern Germany, and more than German exuberance of detail, and complexity of vaulting expedients. With these the style continued to be used for churches as late as in England, and long after the classical styles had become universal in Italy and fashionable in France.

The Gothic style was not entirely disused in Spain till after the middle of the 16th century, but there its history ends, no attempt at a Gothic revival having yet been perpetrated among that inartistic race. It may come, however, but they would adopt Mexican or Chinese with equal readiness, if either of these styles would provide them with places of worship as gorgeous and as suited to their purposes as those they now possess.¹

¹ So much of the information regarding Spanish architecture which is contained in the following pages, is derived from Mr. Street's beautiful work, entitled 'Gothic Architecture in Spain,' published in 1865, that it has not been thought necessary to refer specially to that work in the text. With one or two exceptions, all the plans are reduced from those in

Mr Street's book, and many of the woodcuts are also his. If any one will take the trouble of comparing the very meagre account of Spanish architecture contained in the 'Handbook,' with what is said in this work, they will at once perceive my obligations to Mr Street. His work is a model of its class, and has quite revolutionised our knowledge of the subject.

CHAPTER II.

CONTENTS

Romanesque Churches at Naranco, Roda, and Leon—Early Spanish Gothic: Churches at Santiago, Zamora, Toro, Avila, Salamanca, and Tarragona—Middle Pointed style. Churches at Toledo, Burgos, Leon, Barcelona, Manresa, Gerona, Seville—Late Gothic style Churches at Segovia, Villena—Moresco style: Churches at Toledo, Huesca, and Saragoza.

EARLY SPANISH ROMANESQUE.

As might be expected from what we know of the history of Spain, the only specimens of this style which are known to exist in the country are to be found in the Asturias or in the recesses of that mountain range which extends from Corunna to Barcelona. It was in these regions alone that the Spanish Christians found refuge during the supremacy of the Moslems in the Peninsula, and were free to exercise their religious forms without molestation.

Four or five examples of the style have been described in sufficient detail to enable us to see what its leading features were. The earliest appears to be that of Santa Maria de Naranco, near Oviedo, said to be erected A.D. 848.¹ Another is San Miguel de Lino, which appears to be nearly as old. A third, San Salvador de Val de Dios, is less important than the other two, though peculiar, more like an Irish or French oratory than the others. A fourth is Santa Cristina de Lino. San Pablo, Barcelona,² may be of about the same age as these; and no doubt there are many others which have escaped notice from their insignificant dimensions.

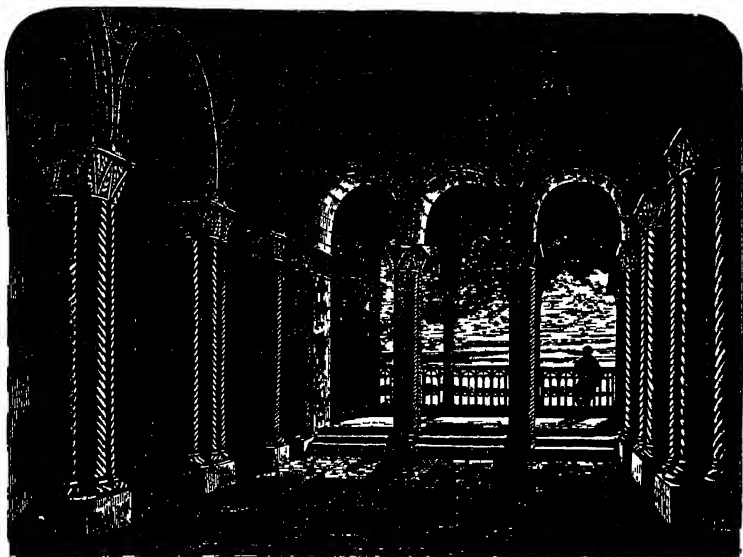
Among these the most interesting is that first named, which stands at Naranco. As will be seen from the plan (Woodcut No 923), it is unlike any contemporary example we are acquainted with. Practically it is a Roman tetrastyle amphiprostyle temple, if such terms can be applied to a Christian edifice, and, so far as we can understand, the altar was placed originally in one of the porticoes,

¹ Parcerisa, 'Recuerdos y Bellezas de España,' Asturias p 78

² These churches, together with other

medieval monuments of Spain, have been published in the 'Monumentos Arquitectonicos de España' See Appendix, note 15.

and the worship was consequently probably external. The great difference seems to have been that there was a lateral entrance, and some of the communicants at least must have been accommodated in

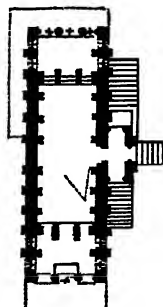


922

View of Church at Naranco. (From Parcerisa.)

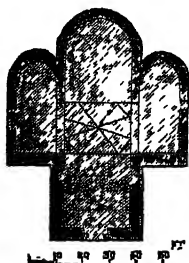
the interior. The ornamentation of the interior differs from classical models more than the plan. The columns are spirally fluted—a classical form—but the capitals are angular, and made to support arches. On the walls also there are curious medallions from which the vaulting-ribs spring, which seem peculiar to the style, since they are found repeated in S. Cristina.

The chief interest of this building, however, lies in the fact that it exhibits the Spaniards in the middle of the 9th century trying to adapt a Pagan temple to Christian purposes, as if the Romans had left no basilicas in the land, and as if the Goths had been unable to elaborate any kind of "ecclesia" in which they might assemble for worship. San Miguel and Santa Cristina are adapted for internal worship, but their form is very unlike those of any other church we are acquainted with. The church of San Pablo differs essentially from them, inasmuch as it is a complete Christian church in all its essentials. Though very small (80 ft. by 67), it is triapsal, with a central dome and all the arrangements of a church, but more like examples found in the East than anything usually

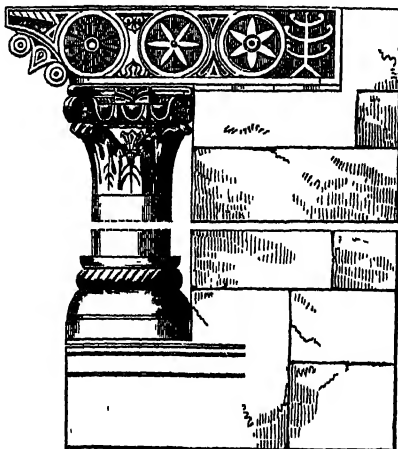

 923 Plan of Church at Naranco
Scale 50 ft. to 1 in

known in the West Its details still retain traces of classic feeling (Woodcut No 925), though something not unlike the Jewish candlestick of the Temple is mixed up with ornaments of Christian origin.

It is difficult to distinguish

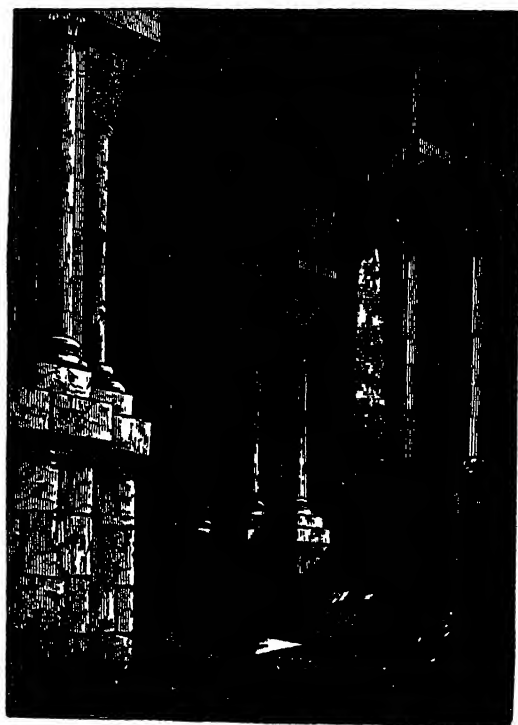


924. Plan of S. Pablo (From 'Mon. Arch.')



925. Detail of S. Pablo. (From 'Mon. Arch.')

between the buildings existing in Catalonia and on the southern side of the Pyrenees, and those which prevailed in the



926. Church at Roda (From Parquerisa.)

southern Aquitanian province The church at Roda, for instance (Woodcut No. 926), might as well have been found at Alet (Woodcuts Nos 549, 550) or Elne (Woodcuts Nos. 560, 561). It presents a complete Gothic style, rich and elegant in its details, but the parts badly fused together, and not well proportioned either to each other or to the work they have to do. Still the combinations are so picturesque, and the details so elegant, that it is not without regret that we find the style of Alet and Roda passing away into something more mechanically perfect, but without their quasi-classical refinement



927.

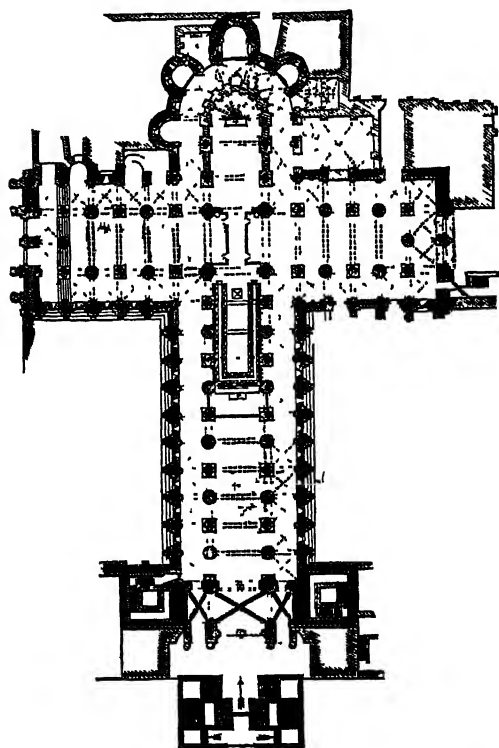
Panteon of St. Isidoro, Leon. (From Parcerisa.)

Towards the other extremity of the architectural province we find in the Panteon of the church of San Isidoro at Leon (A.D. 1063) a contemporary example, exhibiting a marked difference of style. At the time when this and the church at Roda were erected, Catalonia belonged architecturally to Aquitaine, and Leon to Anjou, or some more completely Gothicised province of France. In consequence, we find the style at Leon much more complete in principle, but very much ruder in detail. The eastern province was in the hands of a Latin people; the inhabitants of the western must have been far more essentially Gothic in blood, and their style is strongly marked with the impress of their race.

EARLY SPANISH GOTHIC.

After three centuries of more or less complete supremacy over the whole of Spain with the exception of the northern mountain fastnesses, the tide of fortune at length turned against the Moors. During the course of the 11th century the Castilles and all to the north of them were freed for ever from their power. Their favourite capital, Toledo, fell into the hands of the Christians in 1085, and from that time the

Christians had nothing to fear from the Moors, but on the contrary had the prospect of recovering the whole of their country from their grasp. It was consequently a period of great and legitimate exultation, greater than that which followed the fall of the last stronghold of the infidels before the conquering arms of Ferdinand and Isabella (A.D. 1492)—an event that ended the drama of the Middle Ages in Spain, which the conquest of Toledo had commenced. It is between these two events that the history of Gothic art in Spain is practically included.



928 Plan of Santiago di Compostella. (Reduced from Street)
Scale 100 ft. to 1 in.

For present purposes it may suffice to divide this history into three great chapters.

1. Early Spanish Gothic, commencing about 1060, and lasting for two centuries. A plain and simple, but bold and effective style, first borrowed from the French, but latterly assuming a local character. Round-arched when first introduced, but adopting the pointed form in its later development, though still retaining the rounded form in many of its details till a very late period of the style,

2. Middle or perfect Pointed Gothic, introduced from France about the year 1220, when Amiens and Salisbury were founded; and used in the plans of Toledo, Burgos, and Leon. It consequently

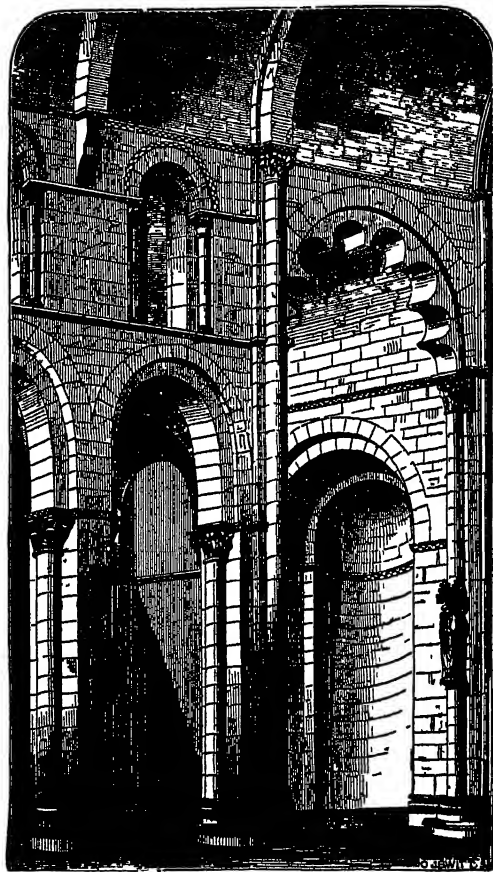


222. Santiago Cathedral. Interior of South Transept, looking North-East. (From Street.)

overlaps the other to some extent, though its actual development as we now see it (except in plans) must probably date from the latter part of the 13th century. It may be said to have lasted for more than

200 years, though it is extremely difficult to draw a line between it and the

3rd period, or Late Gothic style, the duration of which was probably hardly more than one century. The cathedral at Salamanca was founded 1513, and that at Segovia 1525; and these are the two typical examples of the style, which in minor examples continued to be



290.

Interior of S. Isidoro, Leon. (From Street.)

practised till nearly the end of the 16th century, but latterly with a considerable admixture of Renaissance detail.

One of the earliest examples of a complete cathedral in Spain is that of Compostella, commenced in 1078, and carried on vigorously from the foundation. As will be seen by the plan, it is a complete French cathedral in every respect, very nearly identical with that of St. Sernin at Toulouse (Woodcut No. 572), possessing only three aisles instead of five in the nave, though otherwise very similar to it in arrangement and general dimensions.

Its internal structure is also that of the French cathedral, and forms an instructive point of comparison with our English examples of the same age. Up to the string-course above the triforium the Spanish, French, and English examples are much alike, except that the section of the piers in England is nearly double that of the others. Above this, at Toulouse and Compostella, there is a bold tunnel-vault



931.

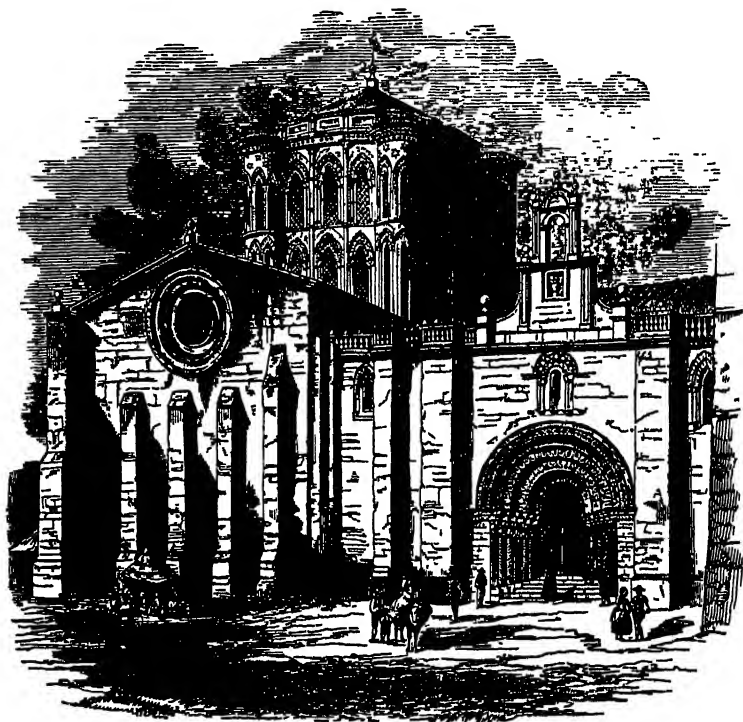
Cathedral at Zamora. (From Villa Anul.)

with transverse ribs; at Ely, Norwich and Peterborough a clerestory with a flat wooden roof. These differences in the treatment of the upper part no doubt arose to some extent from the difference of latitude, sufficient light being attainable in the South without a clerestory, though the gloom of such a design could never be tolerated in Normandy, and much less in England.

What is most striking, however, at Compostella is the completeness of the style. The piers are not only judiciously proportioned to the

work they have to perform, but are as perfect in their details as any of the contemporary churches in Auvergne, and though in what may be called a Doric style, this church is as complete in itself as any of the florid Corinthian Gothics that succeeded it.

The same may be said of the church of San Isidoro at Leon, which, though probably somewhat later—the church seems to have been completed about 1149—presents the same simple style in the same degree of well-understood completeness, all the lines running



932.

Collegiate Church at Toro. (From Villa Amil.)

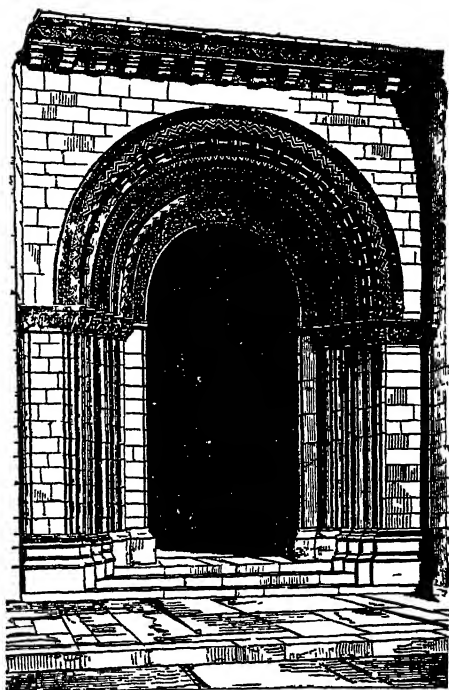
through without confusion, and every part well proportioned to the other. The foliation of the transept arch may be a peculiarity borrowed from the Moors, but, as used here, it is simple and appropriate, and perhaps better than a roll moulding, which would have been the mode of treatment on this side of the Pyrenees.

The interior of Zamora Cathedral, which seems to have been erected about the year 1174, though wholly in the pointed-arch style, is as plain and as little ornamented as that last described. Even the interior of the dome is plain when compared with its exterior, which is varied in outline and rich in decoration, like most of those of that age in Spain. As in the façade, the round arch is employed in the

cimborio almost to the exclusion of the pointed arch as a decorative feature, though in the lower part of the façade and under the dome all the arches are pointed.

It is possible that these interiors, which now look so plain, were, or were intended to be, plastered and painted, though, had the intention been carried out, it is hardly probable but that traces of this mode of decoration would have remained to this day, which does not seem to be the case. Still it is difficult to understand why they should have designed a façade so rich as that of Zamora Cathedral (Woodcut No. 931), if it were to lead to an interior infinitely plainer than the exterior would lead one to expect.

In all the countries of Europe during the Romanesque period the external doorways were the features on which the architects lavished all their art, and Spain was certainly not behind the others in this respect. That at Zamora is excelled in richness by that at Toro (Woodcut No. 932), though the rest of the façade is not so well worked up to its key-note as in the last example. Among a hundred, one of those at Lérida (Woodcut No. 933), borrowed from Mr Street's work, will illustrate their beauty, and seems to force on us the conviction that so much labour would not have

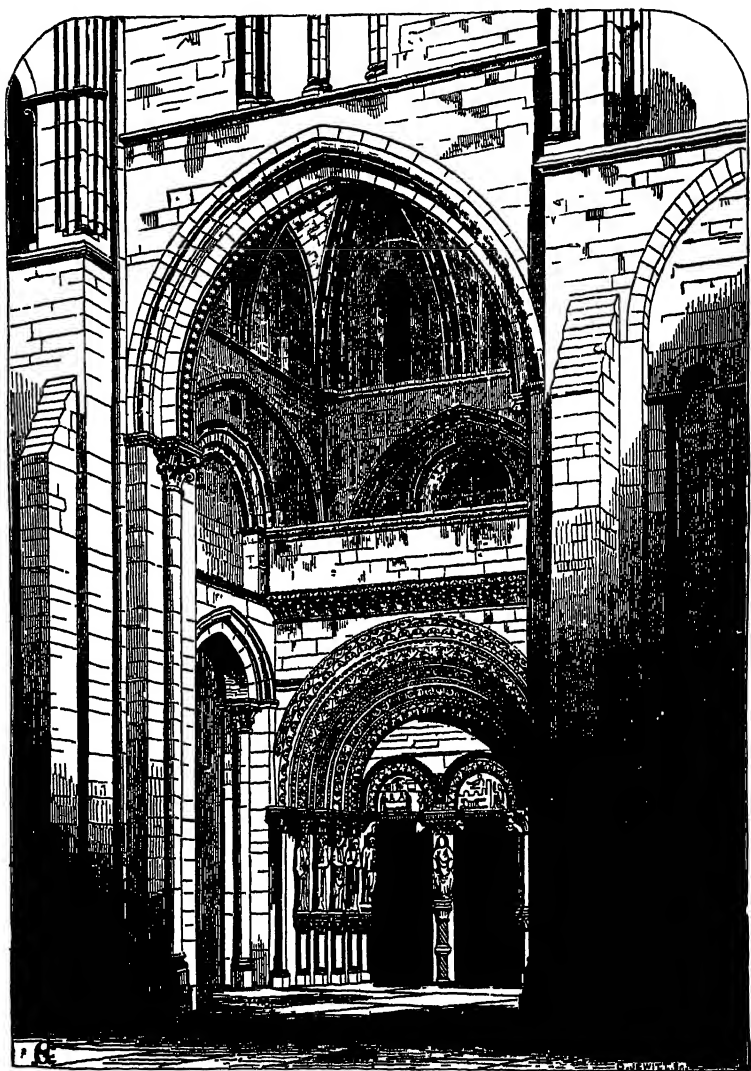


933. Lérida Old Cathedral. Door of South Porch.
(From Street)

been bestowed on them if they were not intended to herald a greater richness within.

In this last example, the doorway has been covered by a porch of 14th or 15th century work; but occasionally the Spaniards seem to have attempted a porch on the scale of Peterborough, as in the church of San Vincente at Avila (Woodcut No 934). In this instance we have only one arch between two flanking towers, but, though limited in extent, it forms a very noble feature, and gives a dignity to the entrance, too often wanting in Gothic design. Its date is uncertain—probably the end of the 12th century—but, strange as it may appear,

the richly carved doorway within, though round-arched, seems to be an insertion either of the same age, or subsequent to the pointed-arch architecture which surrounds it

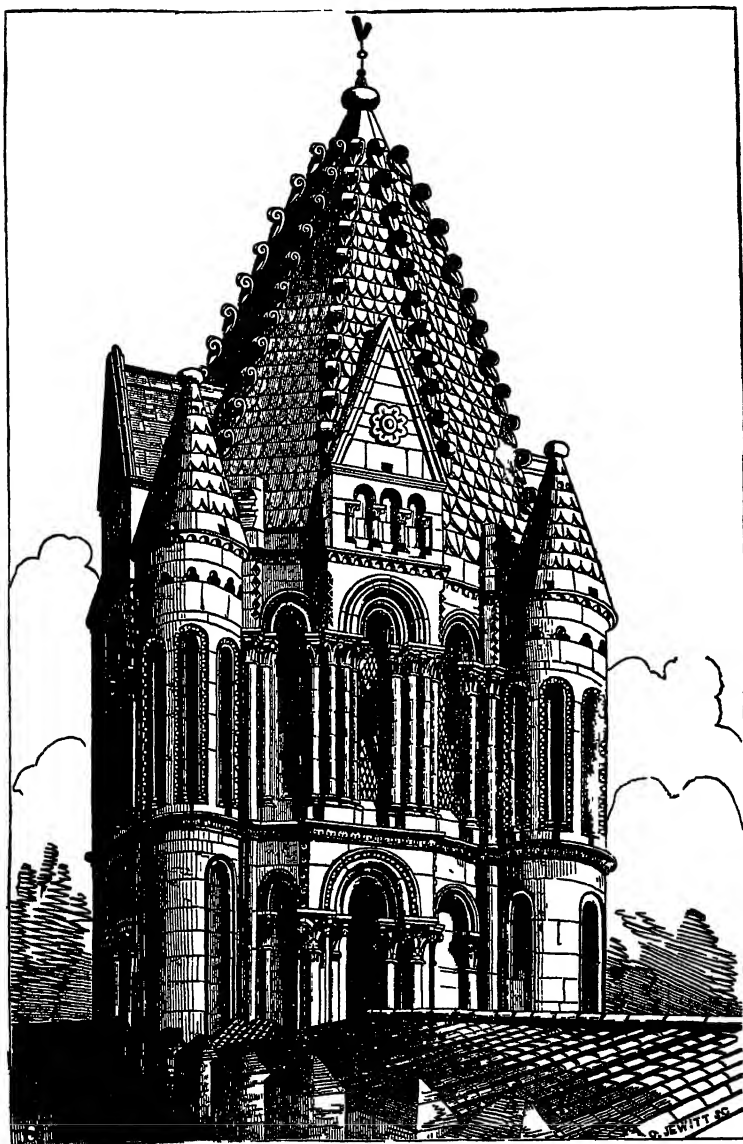


934.

San Vicente, Avila. Interior of Western Porch. (From Street.)

Beautiful as are these details, the great feature of the Early Spanish style is the *cimborio*, or dome, which generally occurs at the intersection of the nave with the transepts. Something very similar is to be found in France, especially in Auvergne and Anjou; but the Spaniards seized upon it with avidity, and worked it out more completely than any

other nation; and with their wide naves it afterwards assumed an importance almost equal to the octagon at Ely. One of the most

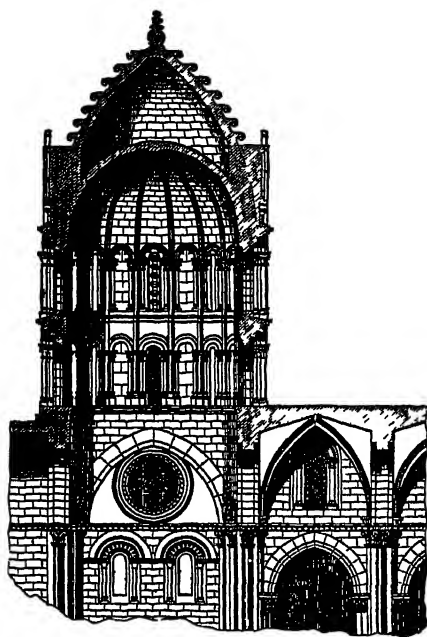


935.

Exterior of Lantern, Salamanca Old Cathedral. (From Street.)]

perfect examples in the early style is that which crowns the old cathedral at Salamanca (Woodcut No. 935), and dates about 1200. As will be observed from the view of the exterior, every detail belongs to

the round-arched style, and in France would certainly be quoted as



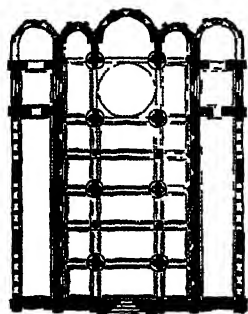
936

Section of Gumborio at Salamanca
(From 'Mon Arch d'Espana.') No scale.

belonging to that date, or earlier, but when we turn to the interior (Woodcut No. 936), we find that the whole substructure is of pointed architecture. True it is the old simple Early Spanish style, yet still such as rather to upset our ideas of architectural chronology in this respect. The internal diameter of the dome is only 28 ft, yet it is a most effective feature both internally and externally, and gives great dignity to what otherwise would be a very plain building.

Without going beyond the limits of the style, the dome at Tarragona (Woodcut No. 938) illustrates the form usually taken by Gothic

domes when resting on square bases. There is a little awkwardness in the form of the pendentives, which do not fit the main arches below them, though at that age the Spaniards might have learned from the



937. St. Millan, Segovia. (From Galliaud.) Scale 100 ft. to 1 in.

Saracens how to manage this feature. At Salamanca the mode in which the square base was worked up into a circle was by pendentives of Byzantine form, the courses of masonry simply projecting beyond one another till the transition was effected, but without that accentuation which was thought so essential in Gothic art. Above the pendentives, however, at Tarragona, the form of the dome is perfect. The windows are alternately of three and four lights, and the whole is fitted together with exquisite propriety and taste.

Although borrowing their style in the first instance immediately from the French, the Spaniards developed it with such a variety of plans and details, as might have made it a style of their own but for the fresh importation of French designs in the beginning of the 13th century. Before these came in, however, they had very frequently in

their churches adopted a form of external portico which was singularly suited to the climate and produced very original and pleasing effects. In the annexed plan of St Millan at Segovia (Woodcut No. 937), they form fourth and fifth aisles, opening externally instead of internally;



938.

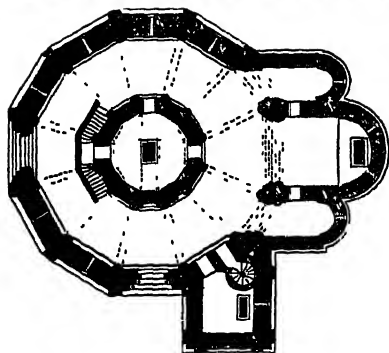
Tarragona Cathedral. View across Transepts. (From Street.)

these, with the windows over them and the shadow they afford, break up the monotony of the sides of the church most pleasingly.¹ Sometimes the aisles are carried round the church, so as to form a portico at the west end as well as at the sides. Sometimes they are on one side

¹ These external porticoes would be admirably adapted for imitation in the climate of India

or the other as the situation demands ; but wherever used they are always pleasing and appropriate

The round form of church does not seem ever to have been, a



939 Church of the Templars at Segovia. No scale.

favourite in Spain. There are some examples, it is true, but they seem, like that at Segovia (Woodcut No 939), to have been built by the Templars in imitation of the church at Jerusalem, and used by them, and them only. The idea of a circular ceremonial church attached to a rectangular "ecclesia," does not appear to have entered into Spanish arrangements. As before remarked, the sepulchres of the original people of Spain do not seem to have been sufficiently important to lead to any considerable development of this form in the Christian times.

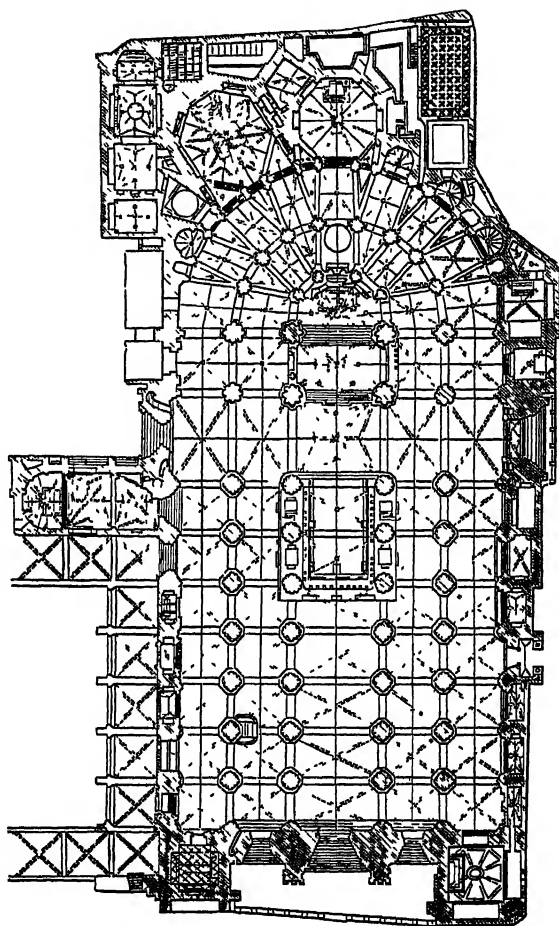
MIDDLE POINTED SPANISH STYLE.

While the early style described in the last chapter was gradually working itself into something original and national, its course was turned aside by a fresh importation of French designs in the beginning of the 13th century. Before the Germans had made up their minds by building the Cathedral of Cologne to surpass the grandest designs of the French architects, the Spaniards had already planned a cathedral on a scale larger than any attempted even in France. The great church at Toledo was commenced in 1227, seven years after Amiens and Salisbury cathedrals had been determined upon. The plan is certainly of that date ; the present superstructure may rather be taken as representing the style of the end of the 13th century, though it does not seem to be known when the church was first consecrated.

The church which Toledo Cathedral most resembles in that plan is at Bourges (Woodcut No. 640). The length is about the same, but the French example is only 130 ft. in width across the five aisles, while the Spanish church is 178 ft., so that its area is considerably in excess. It

is not easy to say what the area of Toledo Cathedral really was, as we cannot quite determine which of the excrescences belong to the original design, but we shall not probably be far wrong in estimating it as under 75,000 ft. It is less therefore than Seville, Milan, or Cologne. It covers rather more ground than York Cathedral, but considerably exceeds Chartres (68,000 ft.), or any of the French cathedrals.

The church at Toledo possesses the same defect in plan that we remarked on in describing that at Cologne: it is too short for its other dimensions. When the French architect at Bourges found himself in that difficulty he omitted the transepts, and so, to a great extent, restored the appearance of length. The architect at Toledo has not projected his transepts to the same extent as at Cologne, but they are still sufficiently prominent internally to make the church look short; but, on the other hand, by



940. Plan of Cathedral at Toledo. (From 'Monumentos Arquitectónicos d'España.') Scale 100 ft. to 1 in.

keeping his vault low, he has done much to restore the harmony of his design; and instead of the 150 ft. of Cologne, or the 125 of Bourges, even with his greater lateral extension, the height of the central vault is little over 100 ft (105?). The next aisle is 60, the outer 35,—a proportion certainly more pleasing than Bourges, or any other five-aisled cathedral. So thoroughly French is the design, that there is no attempt at a cimborio or dome of any sort at the

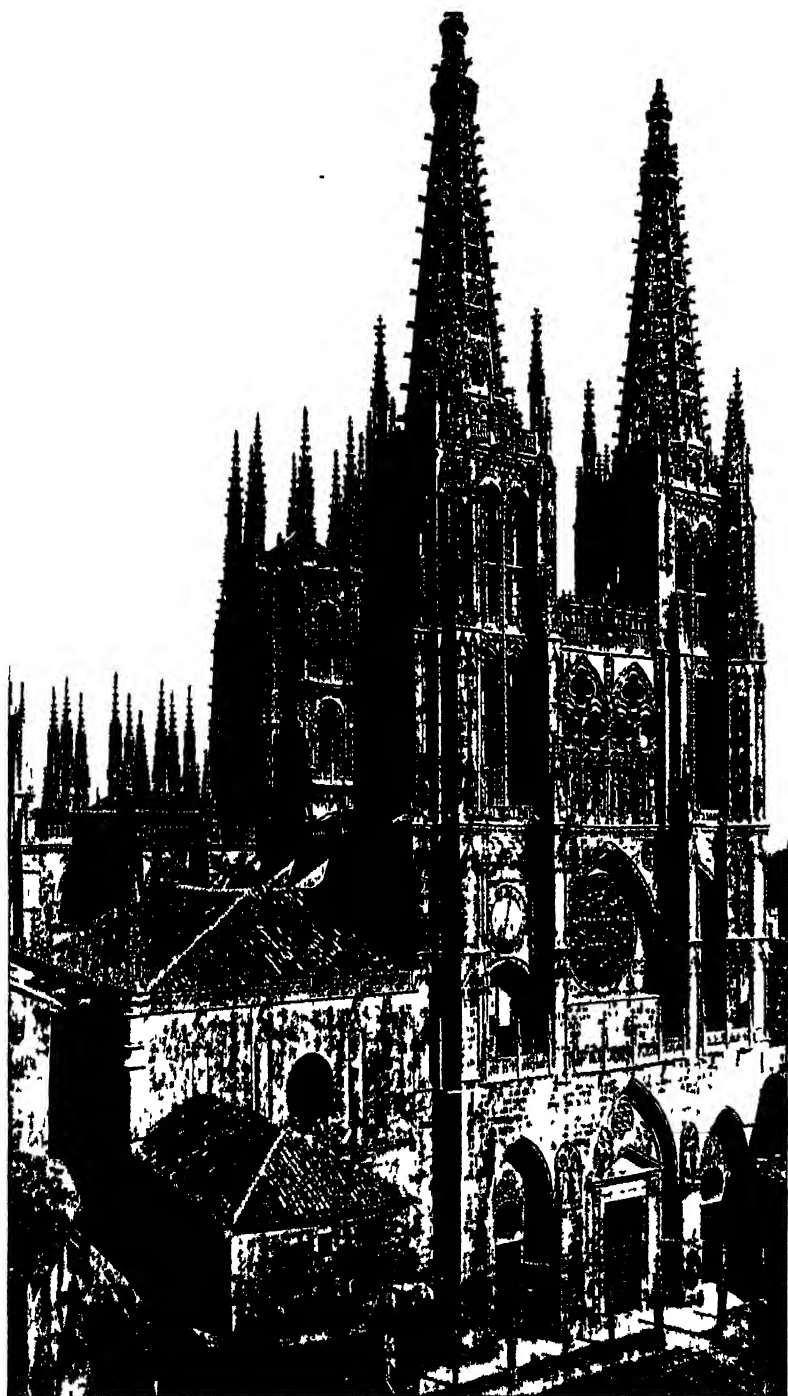
intersection of the nave and transepts, but, on the other hand, the

arrangement of the choir is essentially Spanish, and the screen surrounding it among the most gorgeous in Spain, and one of the most beautiful parts of the cathedral

The origin of the Spanish arrangement of the choir will be understood by referring to the plan of San Clemente at Rome (Woodcut No. 395) The higher clergy were in the early days of the Church accommodated on the bema in the presbytery The singers, readers, &c., were in an enclosed choir in the nave The place for the laity was around the choir outside. So long as the enclosing wall of the choir was kept as low as it was at Rome (about 3 ft.), this arrangement was unobjectionable: but when it came to be used as in Spain, it was singularly destruc-

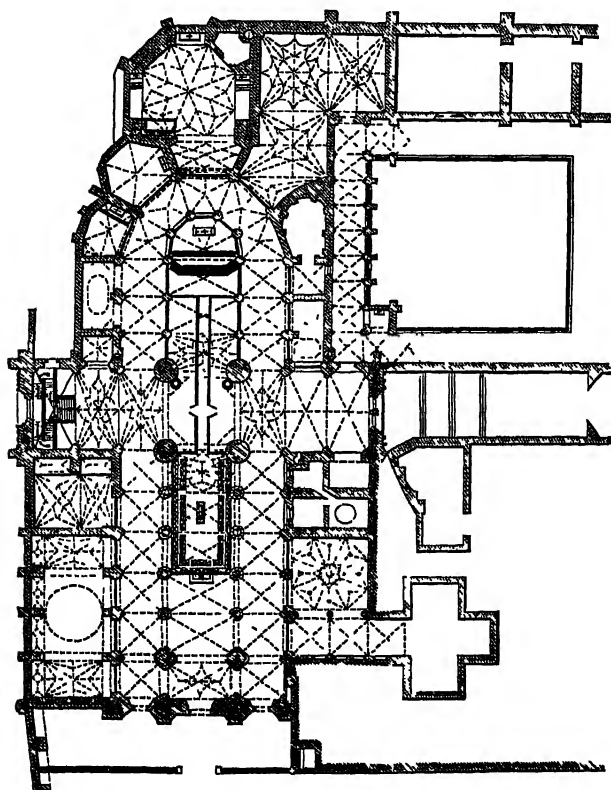


241. View in the Choir of the Cathedral at Toledo. (From Villa Amil.)



CATHEDRAL OF BURGOS, SPAIN

tive of internal effect In France the stalls of the clergy were in the choir beyond the transept, and all to the eastward of the intersection was reserved for them, the nave being wholly appropriated to the laity. This was an intelligible and artistic arrangement of the space, but in Spain the stalls of the clergy were projected into the nave, blocking up the perspective in every direction, and destroying its usefulness as a congregational space, where the laity could assemble or be addressed by the bishop or clergy Worse than



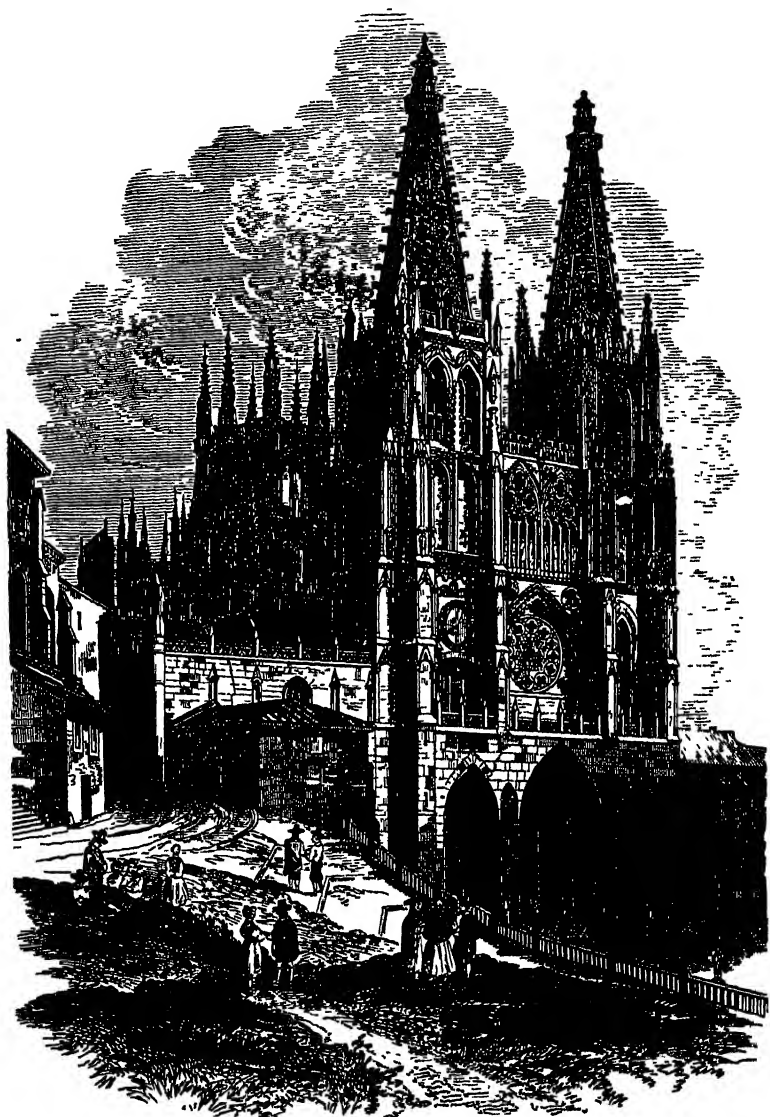
942. Plan of Burgos Cathedral. (Reduced from Street's.) Scale 100 ft. to 1 in.

this, it separated the clergy from the high altar and Capilla Mayor, in which it was situated, so that a railed gangway had to be kept open to allow them to pass to and fro¹ When the Spaniards determined that this was the proper liturgical arrangement for a church, had they been an artistic people they would have invented an appropriate shell to

¹ The Spanish arrangement has recently been adopted in Westminster Abbey, more by accident than design, with an effect as disastrous as anything

in Spain, and apparently as little felt. In monastic churches the choir is always in a gallery above the west doorway.

contain it ; but to put such an arrangement into a French church was a mistake that nothing could redeem Even the elaborate richness of the exterior of the choir at Toledo fails to reconcile us to it, though it

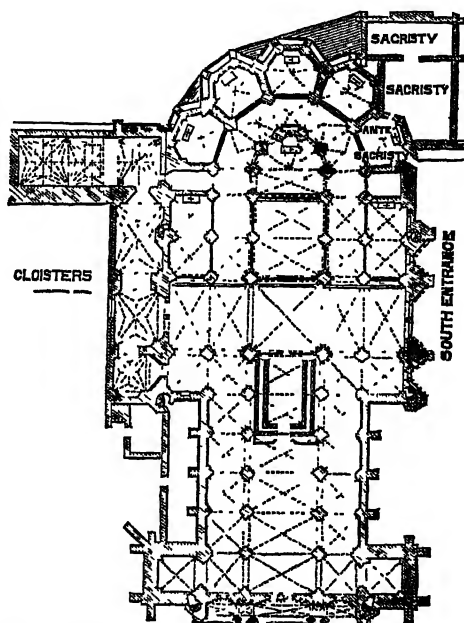


943. West Front of Burgos Cathedral. (From Chapuy, 'Moyen-Âge Monumental.')

is perhaps the richest specimen of its class in Europe, and betraying in certain parts of its ornamentation the influence of Moorish taste which still lingered in the soil in spite of persecution and every attempt to eradicate it.

The external appearance of this church is very much less beautiful than that of the interior. It is, however, so encumbered, that a good view of it can hardly be obtained, and what is seen has been so much altered as to have lost its original character. The north-western tower, in granite, of the façade is fine, though late (1428-1479) and hardly worthy of so grand a building. Its companion was terminated with an Italian dome in the last century, and both in height and design is quite incongruous with the rest.

If at Toledo we find a noble interior encased in an indifferent husk, the contrary is the case at Burgos. Although very much smaller, being only originally designed to be 90 ft. wide by about 310 ft. long, and all its dimensions reduced in proportion, still externally it is as picturesque and effective a design as can be found anywhere in Europe. The western façade (1442) is essentially a German design, originally consisting of three portals deeply recessed and richly sculptured, and still crowned with two spires of open work, and is exquisitely proportioned to the size of the building, though its details are open to criticism. It is well supported by the cimborio or dome at the intersection, though this is even later, having been erected to replace the old dome which fell in 1539, and seems not to have been completed till 1567. Beyond this again, to the extreme east, rises the chapel of the Condestable, erected about 1487, and though this also is impure in detail, it is beautiful in outline, and groups pleasingly with the other features of the design. The effect of the interior is very much injured by the four great masses of masonry which were introduced as piers to support the cimborio when it was rebuilt, and which, with the "Coro" thrust, as usual into the nave, greatly destroy the appearance of the building. On the other hand, the richness of the details of the Capilla Mayor and of the Condestable chapel, together with the variety and elaborateness of the other chapels, make up an

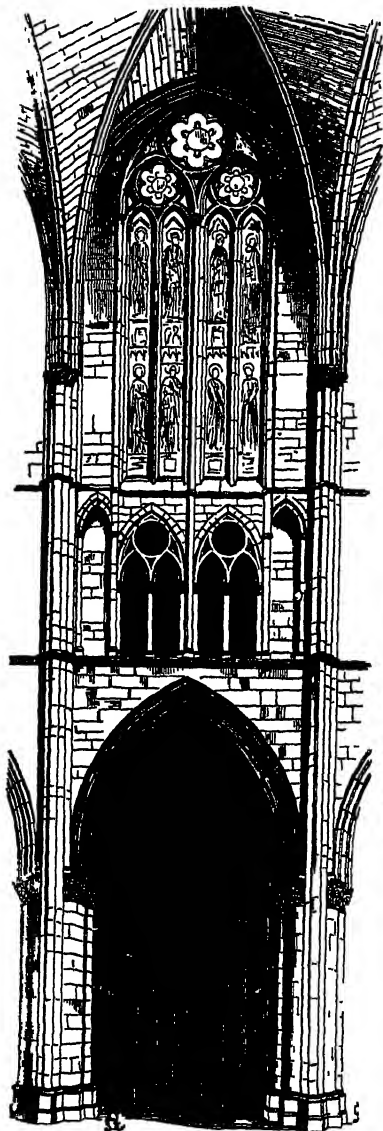


944. Plan of Leon Cathedral. (Reduced from Street's)
Scale 100 ft. to 1 in.

the intersection, though this is even later, having been erected to replace the old dome which fell in 1539, and seems not to have been completed till 1567. Beyond this again, to the extreme east, rises the chapel of the Condestable, erected about 1487, and though this also is impure in detail, it is beautiful in outline, and groups pleasingly with the other features of the design. The effect of the interior is very much injured by the four great masses of masonry which were introduced as piers to support the cimborio when it was rebuilt, and which, with the "Coro" thrust, as usual into the nave, greatly destroy the appearance of the building. On the other hand, the richness of the details of the Capilla Mayor and of the Condestable chapel, together with the variety and elaborateness of the other chapels, make up an

interior so poetic and so picturesque, that the critic is disarmed, and must admit that Burgos merits the title of a romance in stone if any church does.

Leon is a third 13th-century church, the design of which seems certainly to have been imported from France. The exact date of its commencement is not known.



945. Bay of Choir, Leon Cathedral. (From Street.)



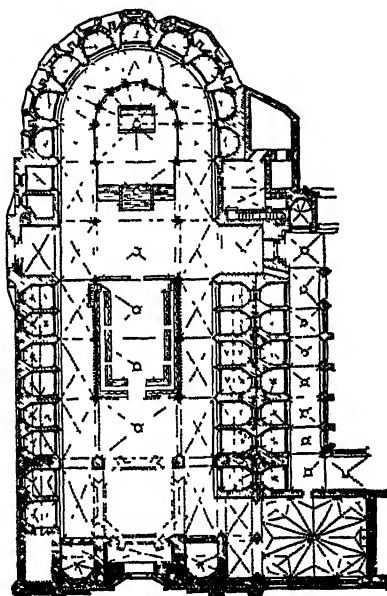
946. Compartment of Nave, Burgos Cathedral.

Mr. Street thinks it about 1250-58, which seems very probable, and it may have been practically completed about 1305. Its dimensions are not unlike those of Burgos; but it has been very much less altered, and may be taken as the type of a 3-aisled basilica as imported into Spain in the 13th century. In the arrangement of the pier-arches (Woodcut No. 945) it very much resembles Beauvais, and in the extent of the clerestory it is more essentially

French than almost any other church in Spain. Burgos, on the contrary (Woodcut No 946), possesses features not to be found in France, such as the round-arched head to the triforium, and the rounded form of the clerestory intersecting vault. The tracery of the clerestory windows is also peculiar in such a situation, and altogether there is a Southern feeling about the whole design which we miss at Leon.

Oviedo is another example of the same class, and generally it may be said that the Spanish cathedrals which were commenced in the first half of the 13th century are all more or less distinctly French in design. But the Spaniards were again working themselves free from their masters, and towards the end of the century and during the next erected a class of churches with wide naves and widely spaced piers which were very unlike anything to be found in France; and, if they cannot be considered as original, their affinities must be looked for rather in Italy than to the north of the Pyrenees.

Among these churches the most remarkable group is that still existing in Barcelona. That city seems during the 14th century to have had a season of great prosperity, when the cathedral and other churches were rebuilt on a scale of great magnificence, and with special reference to the convenience of the laity as contradistinguished from the liturgical wants of the clergy. The cathedral seems to



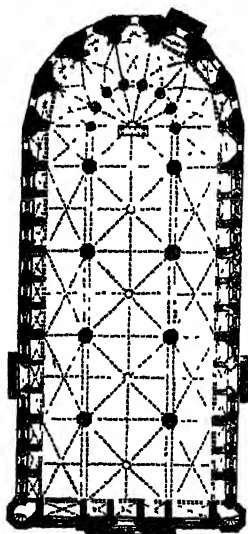
947 Plan of Cathedral at Barcelona.
(Reduced from Siret's) Scale 100 ft. to 1 in.

have been commenced about 1298, and been tolerably far advanced in 1329. Its internal length is about 300 ft., its width, exclusive of the side chapels, about 85 ft, so that it is not a large church, but is remarkable for the lightness and wide spacing of its piers, and generally for the elegance of its details. Looked at from a purely æsthetic point of view, it has neither the grandeur nor solemnity of the older and more solid style; but gloom and grandeur are not necessary accompaniments of a city church, and where cheerfulness combined with elegance are considered appropriate, few examples more fully meet these conditions than this church. Considerable effect is obtained by the buttresses of the nave being originally designed, as was so frequently the case in the South of France, as internal features, and the windows being small are

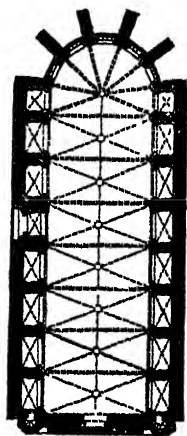
not seen in the general perspective. This supplies the requisite appearance of strength, in which the central piers are rather deficient, while the repetition of the side chapels, two in each bay, gives that perspective which the wide spacing of the central supports fails to supply. Altogether the design seems very carefully studied, and the result is more satisfactory than in most Spanish churches

The system which was introduced in this cathedral was carried a step further in Sta. Maria del Mar (1328-1383). There the central vault was made square and quadripartite, as was frequently the case in Italy; the vault of the aisles oblong, on exactly the contrary principle to that adopted in the North of Europe. Again, however, the equilibrium is to some extent restored by each bay containing three side chapels, though the effect would have been better if these had been deeper and more important. Such a design is inappropriate when a choir is necessarily introduced to separate the clergy from the laity, but for a congregational church it is superior to most other designs of the Middle Ages.

A third church, Sta. Maria del Pi (1329-1353), carries this principle one step farther—this time, however, evidently borrowed from such churches as those of Alby (Woodcut No. 568) or Toulouse (Woodcut No. 569). It has been carried out with the utmost simplicity. The clear internal length is nearly 200 ft., the



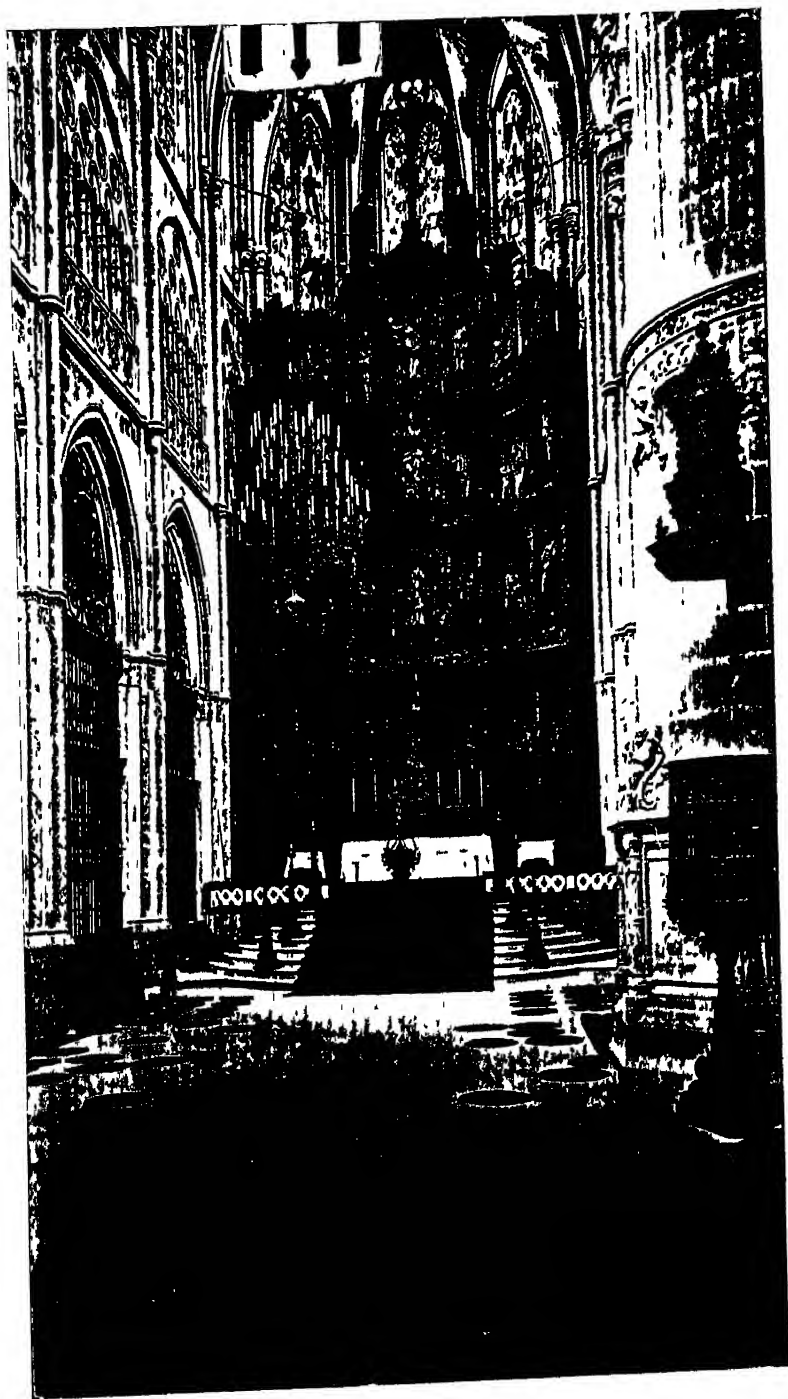
948. Sta. Maria del Mar, Barcelona. (From Street.) Scale 100 ft. to 1 in.



949. Sta. Maria del Pi, Barcelona. (From Street.) Scale 100 ft. to 1 in.

clear width upwards of 50 ft. Such a church would easily contain 2000 worshippers seated where all could see and hear all that was going on. Though it may be deficient in some of those poetic elements which charm so much in our Northern churches, there is a simple grandeur in the design which compensates for the loss.

The church (Woodcut No 950) at Manresa is very similar in design so Sta. Maria del Mar, only carried a step farther, and in the wrong direction. From wall to wall it is 100 ft. wide, and 200 ft. long, and is thus so comparatively short that we miss the perspective which is the great charm in Northern cathedrals. Still if it were not that the central aisle is blocked up by the choir, as is usual in Spain, it would be a very noble church. Its central aisle, which possesses a



INTERIOR OF BURGOS CATHEDRAL

clear width of 56 ft., would be a very noble place of assembly for a congregation. There is, at the same time, a simplicity and propriety



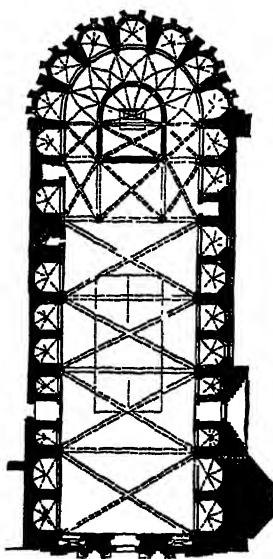
950.

Interior of Collegiate Church, Manresa. (From Street.)

about its details and the arrangement of its apse which have seldom been surpassed, while at the same time, they are characteristic of Spain.

The Spaniards having once grasped the idea of these spacious vaulted halls, and found out the means of constructing them, they carried the principle far beyond anything on this side of the Pyrenees.

Their most successful effort in this direction was at Gerona. The choir of a church of the usual French pattern had been erected there in the beginning of the 14th century (1312?), but it had remained unfinished till 1416, when after much consultation it was determined to carry out the design of a certain Guillermo Boffiy, who proposed to add a nave without pillars, of the same breadth as the centre and side aisles of the choir. As will be seen from the plan, it consists of a hall practically of two squares, the clear width being 73 ft., the length 160 ft. Considering that 40 ft. is about the normal width of the naves of the largest French and English cathedrals, such a span is



951. Plan of Cathedral at Gerona.
(Reduced from Street's to
100 ft. to 1 in.)

gigantic, though with the internal buttresses of the side chapels it presented no great difficulty of construction. Indeed, when we remember that in their vaulted halls the Romans had adopted 83 ft. (vol. i. p. 331) as the normal span of their intersecting vaults, it is not its novelty or mechanical boldness that should surprise us so much as its appropriateness for Christian worship. As might be expected, there is a little awkwardness in the junction of the two designs. It is easy to see what an opportunity the eastern end of the great nave offered to a true artist, and how a Northern architect would have availed himself of it, and by canopies and statues or painting have made it a masterpiece of decoration. It is too much to expect this in Spain; but it probably was originally painted, or at least intended to be. Otherwise it is almost impossible to understand

the absence of string-courses or architectural framings throughout. But, even as it stands, the church at Gerona must be looked upon as one of the most successful designs of the Middle Ages, and one of the most original in Spain.

The cimborio had somewhat gone out of fashion in the North of Spain in the 15th century, and with these very wide naves had become not only difficult to construct, but somewhat inappropriate.

Still there are examples, such as that at Valencia (Woodcut No. 953), which, externally at least, are very noble objects. The church at Valencia seems to have been erected in 1404, and probably it was originally intended to have added a spire or external roof of some sort to the octagon. So completed, the tower would have been a noble central feature to any church, though hardly so perfect in design as that of the old cathedral at Salamanca (Woodcut No. 935).

Of about the same age (1401) is the great cathedral of Seville, the largest and in some respects the grandest of Mediæval cathedrals. Its plan can, however, hardly be said to be Gothic, as it was erected

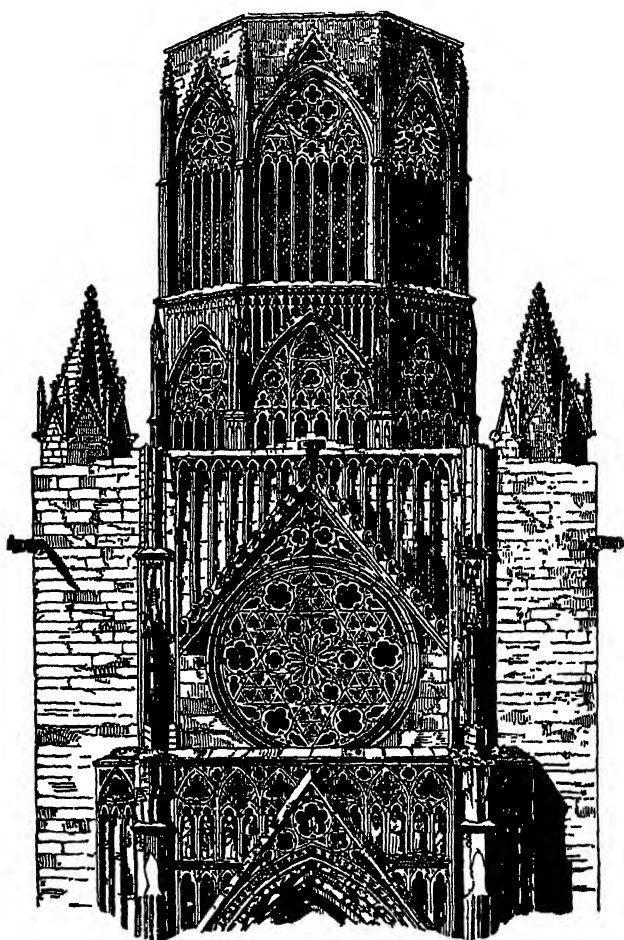


952.

Interior of Cathedral at Gerona, looking East. (From Street.)

on the site of the Mosque which was cleared away to make room for it, and was of exactly the same dimensions in plan (Woodcut No. 954). It consists of a parallelogram 415 ft by 298, exclusive of the sepulchral chapel behind the altar, which is a cinque-cento addition. It thus covers about 124,000 sq. ft. of ground, more than a third in excess of

the cathedral at Toledo (75,000), and more than Milan (108,000 ft.), which, next to Seville, is the largest of Mediæval creations. The central aisle is 56 ft. wide from centre to centre of the columns, the side-aisles 40 ft., in the exact proportion of 7 to 10, or of the side of an isosceles right-angled triangle to the hypotenuse. As will be

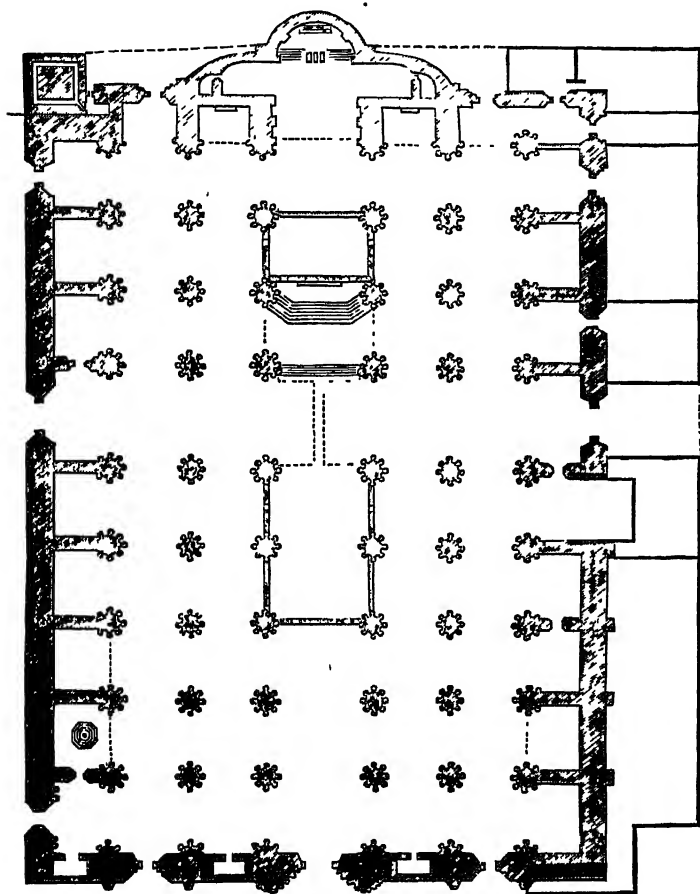


953.

Cimborio of Cathedral at Valencia. (From Chapuy.)

explained hereafter, this is the proportion arrived at from the introduction of an octagonal dome in the centre of the building, though it may have arisen here from the existence of an octagonal court in the centre of the mosque; but, be that as it may, it is a far more agreeable proportion than the double dimensions generally adopted by Gothic architects, and probably the most pleasing that has yet been hit upon.

Unfortunately no section of the cathedral has been published,¹ but the nave is said to be 145 ft. in height, and the side-aisles seem to be in as pleasing proportion to it in height as they are in plan, so that, though different from the usually received notions of what a Gothic design should be, it is an invention that should well bear to have been further followed out. Perhaps it might have been, had it not come so late.



954.

Plan of Cathedral at Seville. Scale 100 ft. to 1 in.

The cathedral was only finished about 1520.

The architect of this noble building is not known, but he was probably a German acting under Spanish inspiration, as at Milan we find a German carrying out an Italian design with just that admixture of foreign feeling which seems to prevail at Seville. When, however, we consider what was done at Barcelona so shortly before, or at Segovia

¹ Consult the Appendix, note 16.

so soon afterwards, we need hardly be surprised if a Spanish architect really built this cathedral also. Those features which to us have a foreign aspect may really be peculiarities forced upon him by having to suit his church to the lines of a mosque, and there may be forms in Andalusian architecture derived from Moorish examples with which we are not so familiar as with those which the Northern provinces derived from France. But, be this as it may, Spain may well feel pride in possessing a cathedral which is certainly the largest of those of the Middle Ages, as well as far more original in design than Toledo or any that were built under French influence. These remarks apply only to the interior. Externally it never was completed, and those parts which are finished were erected so late in the style that their details are far from pleasing in form or constructively appropriate.

LATE SPANISH GOTHIC.

The last stage of Spanish Gothic was not less remarkable than those which preceded it, and perhaps more original. At the time when other Continental nations were turning their attention to the introduction of the classical styles, Spain still clung to the old traditions, and actually commenced Gothic cathedrals in the 16th century. A new cathedral was designed in the year 1513, for Salamanca, to supersede the old one; and another very similar both in dimensions and style was commenced at Segovia in 1523.¹ Both these churches are practically five-aisled, but as they have three free aisles and two ranges of chapels between the internal buttresses, making a total internal width of 160 ft, with an internal length of twice that dimension, no fault is to be found with their internal proportions. But their details want that purity and subordination so characteristic of the earlier styles.

Their great peculiarity, however, consists in the extreme richness and elaboration of their vaults. In this respect they more resemble St. Jacques, Liège (Woodcut No. 681), and some of the late German churches, than anything to be found nearer home. But, wherever derived from, the practice of thus ornamenting the vaults at this late date contrasts singularly with what was done in earlier stages of the style.

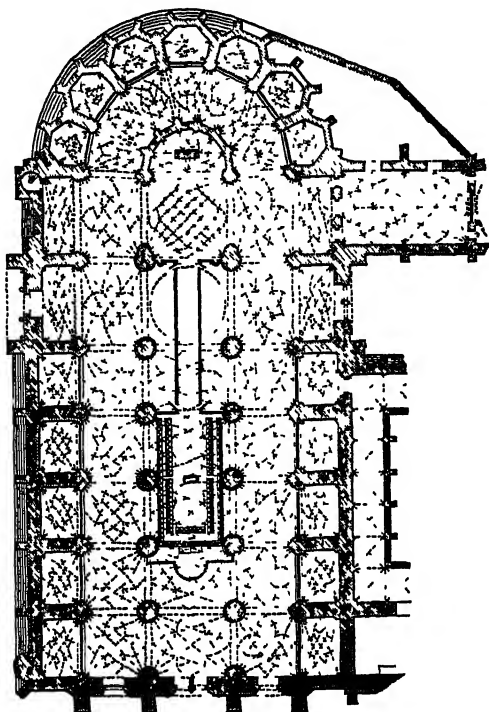
One of the defects of Spanish architecture, after the earliest examples in the round-arched forms, is the poverty of its vaults. Generally they are like those of the French; and owing to the vast extent they attained at Gerona, Manresa, and elsewhere, the one lean

¹ The Church of St. Eustache at Paris was commenced as late as 1532, and, although its plan is almost as Gothic as those of the Spanish examples, the details of the French church are far more essentially Renaissance throughout.

rib in the centre and the absence of any ridge-rib make themselves more painfully felt than even in the French examples. When in the 16th century the architects tried to obviate this defect, it was not done as in England by constructive lines representing the arches, but by waving curved lines spread capriciously over the vault, which was thus certainly enriched, but can hardly be said to have been adorned.

In one or two instances, the late Gothic architects aimed at the introduction of new principles, not perhaps in the best taste, but still so striking as to merit attention. In the church at Villena (1498-1511), for instance, all the columns are ornamented with spiral flutings so boldly executed as to be very effective, and as this spiral ornament is consistently carried throughout the design, and the parts are sufficiently massive not to look weakened in consequence, the whole design must be admitted to be both pleasing and original.

The exteriors of these 16th century churches have a much more modern look than their interiors. From the buttresses being internal, the external walls are perfectly flat, generally terminating upwards by a cornice more or less classical in design. The windows are frequently without tracery, and are ornamented with balconies, and Renaissance ornaments are often intermixed with those of Gothic form in a manner more picturesque than constructive. At times, however, they exhibit such a gorgeous



955. Plan of Cathedral at Segovia. (Reduced from Street.)
Scale 100 ft. to 1 in.



956. Section of Church at Villena. (From 'Mon. Arch d'Espana.') Scale 50 ft. to 1 in.

exuberance of fancy that it is impossible to avoid admiring, though we feel at the same time that it would be heresy to the principles of correct criticism to say that such a style was legitimate.

Among the minor examples of the age, perhaps the most remarkable is the church or chapel of San Juan de los Reyes at Toledo, built by Ferdinand and Isabella as a sepulchral chapel for themselves, though not used for that purpose. It is thus the exact counterpart of our Henry VII.'s Chapel, and of the church at Brou in Bresse. As its founders were at the time of its erection among the richest and most prosperous sovereigns in Europe, all that wealth could do was lavished on its ornamentation. It is as rich as our example, and richer than the French one. But, on the whole, the palm must be awarded the English architect. There is more constructive skill, and the construction is better expressed, at Westminster, than either at Toledo or Brou; though it is difficult not to feel that the money in all these cases might have been better expended on a larger and purer style of art.

Some parts of the church of San Miguel at Xeres exceed even this in richness and elaborateness of ornament, and surpass anything found in Northern cathedrals, unless it be the tabernacle-work of some tombs, or the screens of some chapels. In these it is always applied to small and merely ornamental parts. In Spain it is frequently spread over a whole church, and thus, what in a mere subordinate detail would be beautiful, on such a scale becomes fatiguing, and is decidedly in very bad taste.

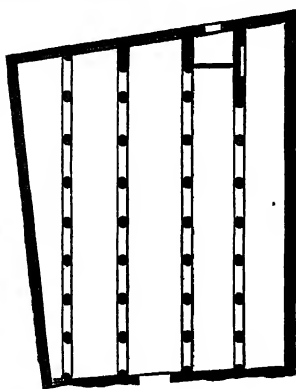
It would be tedious to attempt to enumerate or describe the other cathedrals of Spain, or the numerous conventual or collegiate churches, many of which are still in use, with their cloisters and conventual buildings nearly complete. In this respect Spain is nearly as rich as France, while she possesses, in proportion to her population, a larger number of important parochial churches than that country, though inferior in that respect to England. The last seem during the Middle Ages to have been of more importance in the Spanish Church than they were north of the Pyrenees, and the tendency of the architecture therefore was to provide for their accommodation. If, however, any such feeling then existed, it was carefully stamped out by the Inquisition after the fall of Granada. It would be interesting, however, to trace it back, and try to ascertain the cause whence it arose. Was it that the Aryan blood of the Goths was then more prevalent, and that the Iberian race has since become more dominant? Whatever the cause, it is one of those problems on which architecture may hope to throw some light, and to which, consequently, it is most desirable that the attention of architects should be turned.

MORESCO STYLE.

While Gothic churches were being erected under French influence in the north and centre of Spain, another style was developing itself under Moorish influence in the south, which in the hands of a more artistic people than the Spaniards might have become as beautiful as any other in Europe. It failed, however, to attain anything like completeness, primarily because the Spaniards were incapable of elaborating any artistic forms, but also perhaps because the two races came to hate one another, and the dominant people to abhor whatever belonged to those they were so cruelly persecuting.

If we knew more of the ethnic relations of the Moors, who conquered Spain in the 8th century, we might perhaps be able to predicate whether it were possible for such dissimilar parents to produce a fertile hybrid. It seems certain, however, that the Moors did not belong to any Turanian race, or traces of their tombs would be found, but none such exist. Nor did they belong to any of the great building races, for during the whole of their sojourn in Spain they showed no constructive ability, no skill in arrangement of plans, and no desire for architectural magnificence. But they were a rich, luxurious, and refined people possessing an innate knowledge of colour and an exquisite perception of the beauty of form and detail. They were, in fact, among the most perfect ornamentalists we are acquainted with, but they were not architects. Had the inhabitants of Toledo from the 11th century been French, or any Celtic race, the combination of their constructive skill with the taste in detail of the Moors could hardly have failed to produce the happiest results. As it was, after a few feeble efforts the style died out, but not without leaving some very remarkable specimens of architectural art, though on a small scale. They were also only in perishable plaster, which, though well suited to the style of the Moors, is a material which no architectural people ever would have employed.

As might be expected, the principal examples of this style are to be found in or about Toledo, but specimens exist in almost every province of Spain up to the very roots of the Pyrenees, and its influence is often felt in the extreme richness of ornamentation into which the architects of Spain were often betrayed, even when expressing themselves in Gothic or Renaissance details.



957 Sta. Maria la Blanca. (From 'Mon. Arch.') Scale 50 ft. to 1.

Among the examples at Toledo the two best interiors seem to be the church of Sta. Maria la Blanca and that of Nuestra Senora del Transito, both originally built as synagogues, though afterwards appropriated to Christian purposes. The first is said to have been erected in the 12th century, and was appropriated by the Christians in 1405. As will be seen by the plan, it is an irregular quadrangle, about 87 ft. by 65 ft. in width across the centre, and divided into five aisles by octagonal piers supporting horse-shoe arches. Above these now



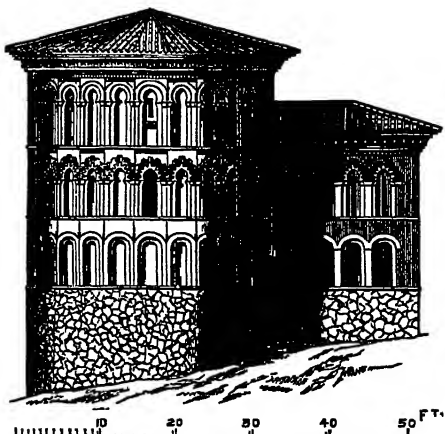
263.

Sta. Maria la Blanca (From Villa Amil)

runs what may be called a blind clerestory, though it appears as if light were originally admitted through piercings in it. The objects are so dissimilar that it is difficult to institute a very distinct comparison between the synagogue and a contemporary Gothic church of the same dimensions, but it may safely be said that if the Northern style is grander in conception, this is far more elegant in detail the essential difference lying in the fact that the Gothic style always had, or aimed at having, a vault, and consequently forced the architects to work and think—the very difficulty of the task being thus the cause of its success. The Saracens in Spain, on the contrary,

never attempted either a vault or a dome, but were always content with an easily constructed wooden roof, calling for no ingenuity to design, and no thought how to convert its mechanical exigences into artistic beauties. The Moorish architects could play with their style, and consequently produced fascinating elegances of detail; the Gothic architects, on the contrary, were forced to work like men, and their result appeals to our higher intellectual wants; though in doing so they frequently neglected the polish and lighter graces of style which are so pleasing in the semi-Asiatic art of the South of Spain.

The other synagogue—del Transito—we know was completed in 1366. It is merely a large room, of pleasing proportion, the walls of which are plain and solid up to about three-fourths of their height. Above this a clerestory admits the light in a manner singularly agreeable in a hot climate. The roof is of wood, of the form called *Artesinado* in Spain, from its being something in the form of an inverted trough—with coupled tie-beams across, so that, though elegant in detail it has no constructive merit, and the whole depends for its effect,¹ like all Moorish work in Spain, on its ornamental details.



959. Apse of St. Bartolomeo. (From 'Mon. Arch.')
Scale 25 ft. to 1 in.

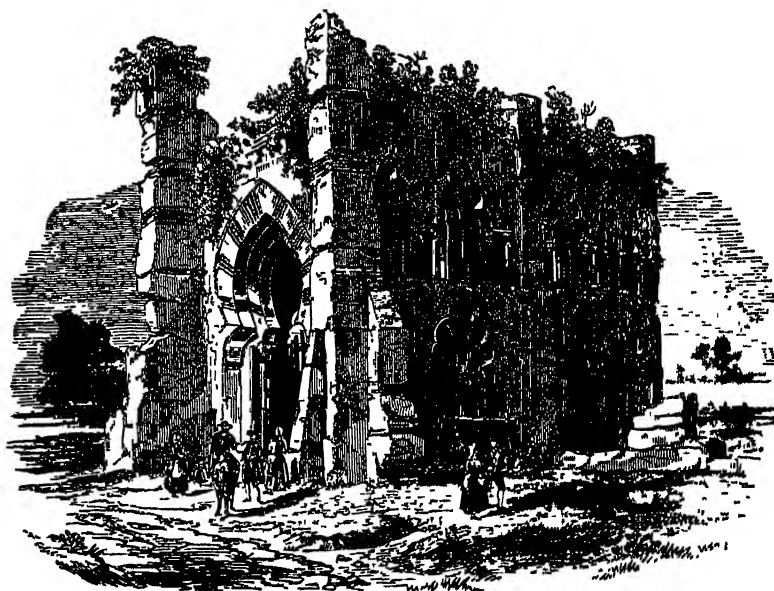
All the churches we know of in this style date within the period comprised between the fall of Toledo (1085) and that of Granada (1492). During that time the Moors were still sufficiently powerful to be respected and their art tolerated. After their expulsion from their last stronghold, fear being removed, bigotry became triumphant, and persecution followed, not only of the people and their religion, but of everything that recalled either to remembrance.

It is possible that some larger and more important churches than those we now find were erected during this period in this style; but if so, they have perished. One of the largest at Toledo, San Bartolomeo, has an apse (Woodcut No. 959) little more than 30 ft. across over all, and others, such as Santa Fé, Santa Leocadia, San Eugenio, or Santa

¹ The room called Paranimfo in the University of Alcalá (see Woodcut No. 89, History of Modern Architecture, vol. 1.) is of precisely similar design to this, only carried out with Renaissance instead of Moorish detail.

Isabel, are all smaller, St Ursula alone being of about the same dimensions with St. Bartolomeo. The decoration of the apse of the latter will afford a fair idea of the style of detail adopted in these churches. For brick architecture it is singularly appropriate. It admits of more or less light, as may be required. It is crowned by a cornice of pleasing profile, and the whole is simpler and better than the many-buttressed and pinnacled apses of the Gothic architects.

A more picturesque example, though not so puro as that last quoted, is found in the little chapel of Humanejos in Estremadura (Woodcut No. 960). As will be observed from the woodcut, there is



960.

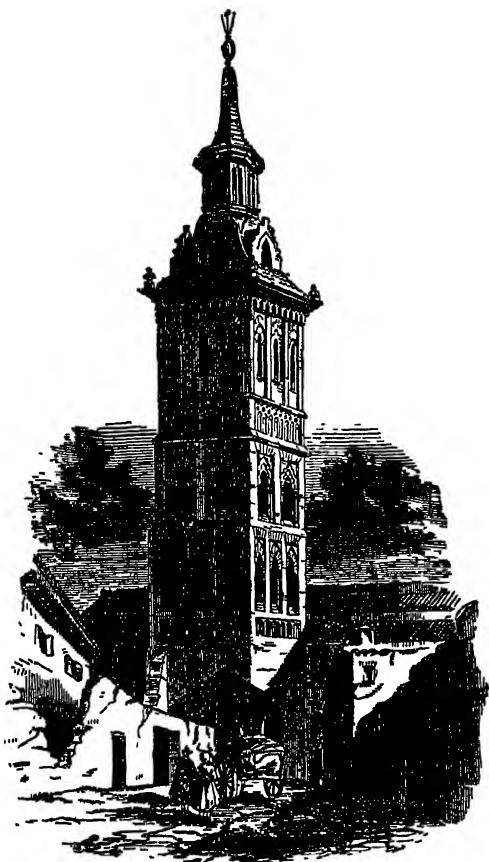
Chapel at Humanejos (From Villa Amil.)

some 13th-century tracery in its windows, thus revealing its date as well as betraying its origin, and but for which it might almost be mistaken for an example of pure Saracenic architecture.

This is even more the case in a beautiful chapel in the monastery of the Huelgas, near Burgos, which, were it not for some Gothic foliage of the 14th century, introduced where it can hardly be observed, might easily pass for a fragment of the Alhambra. The same is true of many parts of the churches at Seville. That of La Feria, for instance, and the apse of the church of the Dominicans at Calatayud, are purely in this style, and most beautiful and elaborate specimens of their class.

Very pleasing examples of the adaptation of Moorish art to Christian purposes are to be found in various churches throughout Spain,

That of St Roman at Toledo¹ is a very pleasing and pure example of the style, but neither so picturesque nor so characteristic as that at Ilescas (Woodcut No. 961), not far from Madrid, which, though differing essentially from any Gothic steeple, is still in every part appropriately designed, and, notwithstanding its strongly marked



961.

Tower at Ilescas (From Villa Aml.)

horizontal lines, by no means deficient in that aspiring character so admirable in Gothic steeples.

Another remarkable example is the tower and roof of the church of St. Paul, Saragoza. It is so unlike anything else in Europe, that it might pass for a church in the Crimea or the steppes of Tartary. As

¹ An engraving of this tower is given in Street's 'Gothic Architecture in Spain,' page 225, accompanied with a very com-

plete enumeration of all the examples of the style to be found in Toledo.

if to add to its foreign aspect, the tiles of the roof are coloured and glazed, thus rendering the contrast with Gothic art stronger than even that presented in the details and forms of the architecture.

The Church of St. Thomé at Toledo has a tower so perfectly Moorish in all its details, that but for its form it might as well be classed among the specimens of Moorish as of Mozarabic architecture.

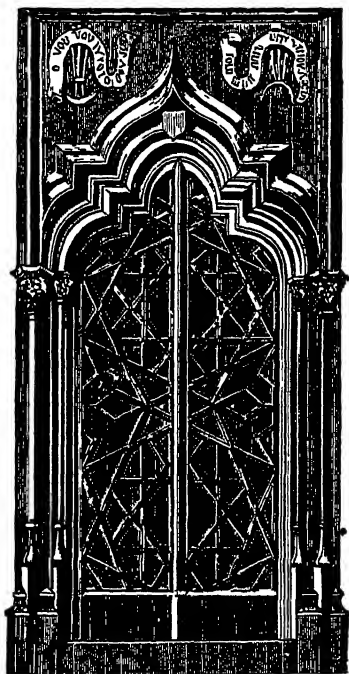


362.

St. Paul, Saragoza. (From Villa Amal.)

Throughout Spain there are many of the same class, which were undoubtedly erected by the Christians. Both in this country and in Sicily it is never safe to assume that because the style of a building is Moorish, even purely so, the structure must belong to the time when the Moors possessed the country, or to a happy interval, if any such existed, when a more than usually tolerant reign permitted them to erect edifices for themselves under the rule of their Christian conquerors,

Sometimes we find Moorish details mixed up with those of Gothic architecture in a manner elsewhere unknown, as for instance in the doorway, in Woodcut No 963, from the house of the Ablala at Valencia. The woodwork is of purely Moorish design, the stonework of the bad unconstructive Gothic of the late Spanish architects, altogether making up a combination more picturesque than beautiful, at least in an architectural point of view



963.

Doorway from Valencia. (From Chapuy.)

CHAPTER III.

CIVIL ARCHITECTURE.

CONTENTS

Monastic Buildings—Municipal Buildings—Castles.

MONASTIC BUILDINGS.

As already mentioned, to most of the great churches described above



964. Cloister of the Huelgas, near Burgos. (From Villa Amil.)

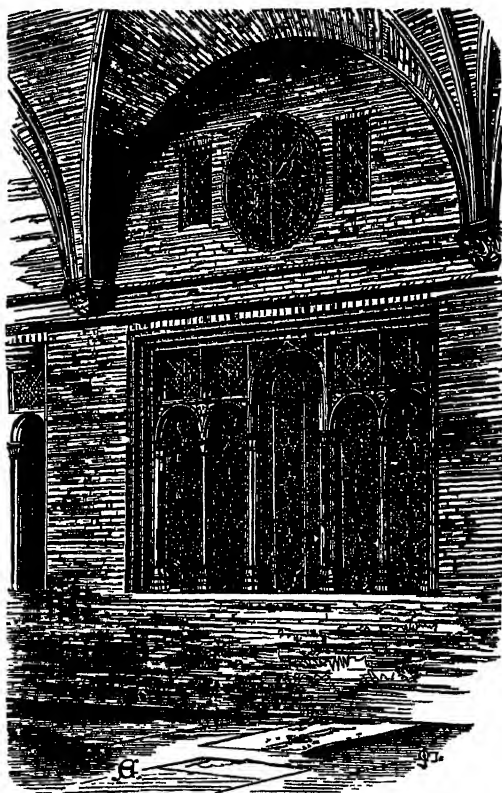
there were attached monastic establishments on a scale commensurate with them in dignity, and ornamented in an equal degree. Most of these, too, had chapter-houses, generally square vaulted apartments, not equal in originality or magnificence with those of England, but very superior to anything found in France. The most ornamental part of these is generally the screen of triple arches by which they open on the cloister. Internally they are now generally plain, but they may have been adorned with wooden stalls and furniture, which have since disappeared.

More important than these are the cloisters to which they were attached—the *patio* of the convent, which in such a climate as that

of Spain was an indispensable adjunct, and much more appropriate than a covered arcade ever was or could be in our northern climate. The

Spanish architects seem, in consequence, to have revelled in the designs of their cloisters, and from the simple arcade of Gerona (1117) to the exuberant caprice of San Juan de los Reyes, they form a series of examples completely illustrative of the progress of Spanish art : perhaps more so than even the churches to which they are attached. Some of the cloisters have octagonal projections with lavatories.

The favourite form of the earlier examples, like those in the South of France (Woodcut No. 559), is that of an open arcade supported on coupled columns, on the capitals of which the architects delighted to lavish all their powers of variety and design. That at the convent of the Huelgas (Woodcut No 964) gives a fair idea of the mode in which they are carried out, and is certainly far more appropriate than the traceried arches of Northern examples, which, without glazing, are most unmeaning. During the 14th and 15th centuries the Spaniards adopted them, and some of the best specimens of their traceries are to be found in the cloister arcades. Having gone so far, however, they went on,



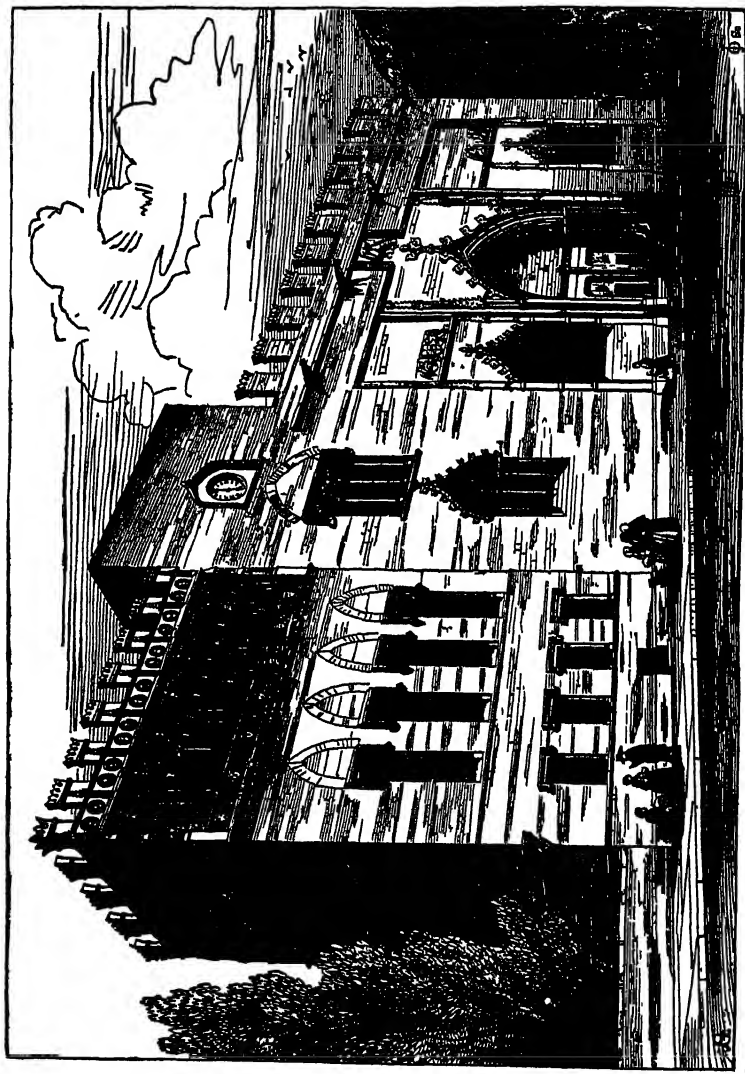
965.

Cloister, Tarazona (From Street.)

and carried the idea to its legitimate conclusion by filling up the whole opening with a screen of pierced tracery. The most complete example of this style is that found at Tarazona in Aragon. The cloister itself is in brick, but not even plastered ; the openings are filled with stone slabs pierced with the most varied and elegant Gothic tracery. It would seem a more reasonable plan to have used stone for the structure and terra-cotta for the openings ; but as it is, the effect of the whole is extremely pleasing. It is, however, more like an Oriental than an European design, and reveals as clearly as the churches of Toledo the continued presence of the Moor in the land of Spain.

MUNICIPAL BUILDINGS.

Spain does not seem to have possessed, during the Middle Ages, any municipalities of sufficient importance to require buildings of an



The Casa Lonja, Valencia. (From Street.)

906.

important or permanent character for their accommodation. There are, it is true, one or two Lonjas, or places for the assembly of merchants, which are of some magnificence. But these were erected on the very verge of the Renaissance, and betray all the feebleness of

an expiring style That at Valencia is, perhaps, the best example. Internally it has twisted fluted columns similar to those at Villena¹ (Woodcut No. 956). The two buildings are said to have been designed by the same architect, but the columns in this instance are much more attenuated than in the church. The exterior has at least the merit of expressing the internal arrangements. On one side of the central tower is the great hall, on the other the public rooms, and above these an upper storey with an open arcade. The last is a feature very frequently found in Spain, not only in Mediæval palaces, but in those of the Renaissance period, and wherever it exists it is one of the most pleasing that can be found, it gives all the shadow of a cornice, without its inconvenient and useless projection, and crowns the whole design in an appropriate and pleasing manner.

CASTLES.

One example must suffice to recall attention to the fact of the existence of "Chateaux en Espagne." On the plains of Castille they are not only numerous, but of great magnificence; erected apparently before the fear of inroads from the Moors of Granada had passed



967.

Castle of Cocos, Castille. (From Villa Amil.)

away, or at all event when a military aristocracy was indispensable to save the nation from reconquest by these dreaded enemies. Of

¹ Another example exists at Palma, in the island of Majorca, in which there are no capitals to the columns, the ribs of vault dying into the shaft.

these the Kasr at Segovia is one of the best known and most frequently drawn. It has the advantage of being still inhabited, and its turrets retained, till recently, their tall conical roofs, which gave it so peculiar and local an aspect¹ It also possesses the advantage—rare in Spanish castles—of standing on the edge of a tall rock, to which it has been fitted with almost Oriental taste.

Another favourable specimen is the now ruined castle of Cocos. Its tall towers and clustering turrets still attest its former magnificence, and point to a local style of defensive architecture differing from that of any other part of Europe, but even more picturesque than the best examples of either France or England. The castle at Olite is still more local in its style. Many other examples might be quoted; but they hardly belong to the fine-art branch of Architecture, and thus scarcely come within the scope of this work, though a monograph of the military architecture of Spain during the Middle Ages would be almost as interesting as that of her ecclesiastical remains.

¹ These were destroyed by a fire which occurred between thirty and forty years ago.

CHAPTER IV.

PORTUGAL.

CONTENTS

Church of Batalha—Alcobaça—Belem.

So little attention has been paid to the subject of Gothic architecture in Portugal, that it is by no means clear whether it contains any churches of interest belonging to that style. There are certainly some splendid remains at Belem near Lisbon, and fragments at least elsewhere; but those who have described them are so little qualified for the task by previous study, that it is impossible to place reliance on the correctness of their assertions regarding them. One church, however,—that at Batalha,—has met with a different fate, and having arrested the attention of Mr Murphy, “the illustrator of the Alhambra,” was drawn by him, and published in a splendid folio work at the end of the last century. As might be supposed from the date of the work, the illustrations do not quite meet the exigences of modern science, but it is at all events one of the best illustrated churches in the Peninsula, and seems in some respects to be worthy of the distinction, being certainly the finest church in Portugal.

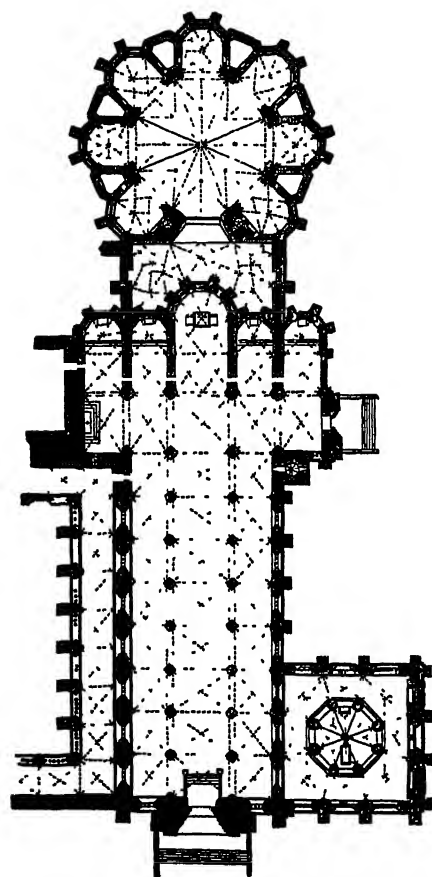
It was erected by King John of Portugal, in fulfilment of a vow made during a battle with his namesake of Spain in the year 1385, and was completed in all essentials in a very short period of time. From the plan (Woodcut No 968) it will be seen that the form of the original church is that of an Italian basilica—a three-aisled nave ending in a transept with five chapels; the whole length internally being 264 ft., and the width of the nave 72 ft. 4 in. It is therefore a small building compared with most of the Gothic churches hitherto described. To the right of the entrance, under an octagonal canopy which once supported a German open-work spire, are the tombs of the founder and of his wife Philippa, daughter of John of Gaunt; beyond this the octagon expands into a square, in a very Eastern fashion, to accommodate the tombs of other members of the royal family who are buried around. The whole design of this part is one of the most suitable for a family sepulchre to be found anywhere. The wonder, however, of the Batalha, or rather what would have

been so had it been completed, is the tomb-house which Emanuel the Fortunate commenced for himself at the east end of the church. Similar chapels at Burgos and Murcia have already been noticed, but this was to have surpassed them all, and if completed would have been the most gorgeous mausoleum erected during the Middle Ages.

It is curious to observe how the tradition of the circular tomb-house behind the altar remained constant in remote provinces to the

latest age. The plan of this church is virtually that of St. Martin at Tours, of St. Benigne at Dijon (Woodcuts Nos. 575, 577), and of other churches in Aquitania. It is easy to see how by removing the intermediate walls this basilica would become a chevet church, complete except for the difference in the span of the two parts. Had the mausoleum been finished, the wall separating it from the church would not improbably have been removed.

The plan of this tomb-house is interesting as being that of the largest Gothic dome attempted, and as showing how happily the Gothic forms adapt themselves to this purpose, and how easily any amount of abutment may be obtained in this style with the utmost degree of lightness and the most admirable play of perspective; indeed no constructive difficulties intervene to



366. Plan of the Church at Batalha. (From Murphy.)
Scale 100 ft. to 1 in.

prevent this dome having been twice its present diameter (65 ft.); in which case it would have far surpassed Sta. Maria del Fiore and all the pseudo-classical erections that have since disfigured the fair face of Europe.

Generally speaking, neither the proportions nor the details of this church are good; it was erected in a country where the principles of Gothic art were either misapprehended or unknown, and where a



THE TOWER OF BELEM, PORTUGAL

lavish amount of expenditure in carving and ornament was thought to be the best means of attaining beauty. The church from this cause may almost be considered a failure, its two sepulchral chapels being in fact by far the most interesting and beautiful parts of the structure. It may be observed also that the open-work spire agrees much better with the semi-Oriental decoration of the churches both of Burgos and Batalha than with the soberer forms of the more Northern style. One is almost tempted to fancy that the Germans borrowed the idea from Spain rather than that Spain imported it from the North. Till we know more of the age of the cathedrals of Leon, Oviedo, and other cities in the North of Spain, the point cannot be determined; but it seems by no means certain but that further knowledge will compel the Germans to resign their claim to this their single alleged invention in the pointed style.

Next in importance to the church at Batalha is that at Alcobaça, commenced in the year 1148, and finished in 1222. It is a simple and grand Cistercian abbey-church, not unlike that at Pontigny (Woodcut No 643) in style. Its total length is 360 ft.; its height about 64. The nave is divided from the side-aisles by twelve piers, the arches of which support vaults of the same height over the three divisions—a circumstance which must detract considerably from the beauty of its proportions. The east end is terminated by a chevet (called by the Portuguese a *charola*) with nine chapels.

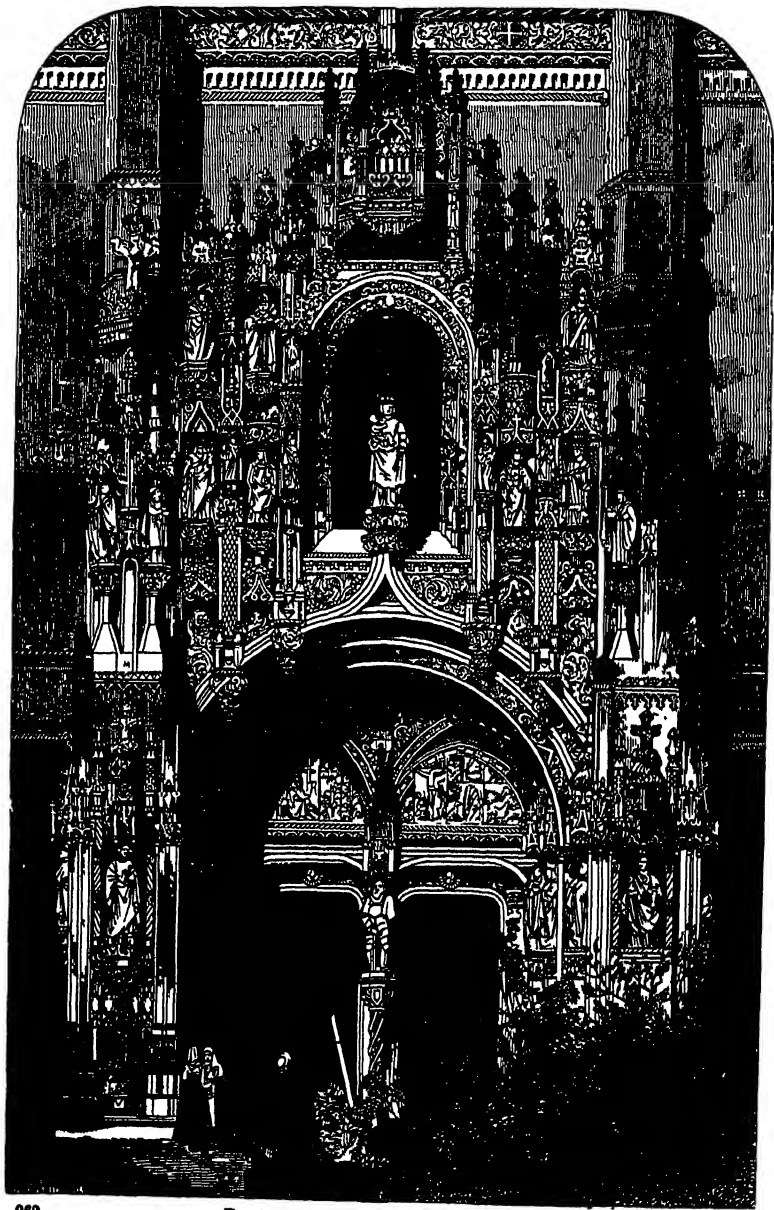
The monastery attached to this church, formerly one of the most splendid in the world, was burnt by the French in their retreat from Portugal.

At Coimbra there are still some remains of Gothic churches; the principal of these is the old cathedral, which, though much destroyed, still retains many features belonging to the same age as that of Alcobaça.

In the same town is the church of Sta. Cruz, rebuilt by French architects in the year 1515, in the then fashionable flamboyant style of their country; and in complete contrast to this is the small but interesting Round Gothic church of Sta. Salvador, erected about the year 1169.

The church of the convent at Belem near Lisbon, though one of the latest, was intended by its founder, Emanuel the Fortunate, to be one of the most splendid in the kingdom. It was commenced in 1500, but not finished till long after the Renaissance had set in, so that (in the interior especially) it is very much disfigured by incongruities of every sort. The southern portal, however, is wholly in the style of the first years of the 16th century, and is as elaborate an example of the exuberant ornamentation of that age as can be found in the Peninsula. It is, of course, full of faults, and by no means worthy of imitation; but its richness in figure sculpture and in

architectural carving is very impressive and pleasing, in spite of all that can be said against its taste



969.

Facade at Belem. (From a Photograph.)

No one who is familiar with the chapel at Roslyn can fail to recognise at once the similarity of design and detail between the two.

The Portuguese example is half a century more modern, for which allowance must be made. It is also more delicate, as the work of a Southern people might be expected to be. Moreover, it is the work of men among whom the style arose, and who consequently were more at home in it than the Scotch builder could pretend to be, but notwithstanding all these deductions, there is a similarity between the style of the two buildings so remarkable as to leave no doubt of their common origin.

The other churches of Portugal, such as those of Braga, Guimaraens, &c, seem to have been of late flamboyant style, and generally are so much modernised that the little beauty they ever possessed is concealed or destroyed by modern details.

Notwithstanding the late age of the principal examples and the apparent paucity of those of an earlier time, it is still possible that Portugal may contain much to interest the archæologist. But travelling has hitherto been inconvenient and slow in that country, and it has not yet been visited, or at least described, by any one familiar with the peculiarities of Mediæval art. When properly explored, we may be surprised at the treasures it contains. On the other hand, it is by no means impossible that the 'Handbook of Portugal' is correct when it asserts that "There is no European country which has less interesting ecclesiology than Portugal. There are certainly not 150 old churches in the kingdom. The French invasion, the great earthquake, and the rage for rebuilding in the 18th century, have destroyed nearly all."

Let us hope it may not be so, but at present we have little beyond the hope to rely on.

PART III.

SARACENIC AND ANCIENT AMERICAN ARCHITECTURE.

BOOK I.

CHAPTER I.

SARACENIC ARCHITECTURE IN CHRISTIAN COUNTRIES;
OR, BYZANTINE SARACENIC.

NOTE—In consequence of the re-arrangement of the work, as explained above, by which all the Indian chapters are taken out of it and put together in a separate volume by themselves, the third part of the original work is reduced to very limited dimensions. It consists in the first place of those styles of Saracenic art which are in any way connected with the European styles, and which consequently must be studied together with them in order to be understood. But all the Indian developments of the same style are omitted, first, because they have no real or direct connection with the Western styles; and, secondly, because their affinities are much more intimate with the local styles of Hindostan than with those of Europe. When, however, this great branch is cut off, the Saracenic styles west of the Indus do not occupy a very important place in a general history of architecture—nothing that can compare with the great Christian or classical styles, and hardly even with those of Assyria or Egypt.

As the Indian styles necessarily include the Cambodian, Chinese, Japanese, &c., the only styles that remain to be described are those of the New World. Their connection with other styles is at present so hazy and indefinite that they may be arranged anywhere; but in order to avoid any appearance of prejudging any hypothesis, it may be as well to place them in this part of the work, in juxtaposition with a style with which they cannot be suspected of having any connection.

INTRODUCTION.

THE first century of the Hejira forms a chapter in the history of mankind as startling from the brilliancy of its events as it is astonishing from the permanence of its results. Whether we consider the first outburst of Mahomedanism as a conquest of one of the most extensive empires of the world by a small and previously unknown people, or as the propagation of a new religion, or as both these events combined, the success of the movement is without a parallel in history.

It far surpassed the careers of the great Eastern conquerors in the importance of its effects, and the growth of the Roman Empire in brilliance and rapidity. From Alexander to Napoleon, conquests have generally been the result of the genius of some gifted individual, and have left, after a short period, but slight traces of their transient splendour. Even Rome's conquest of the world was a slow and painful effort compared with that of the Arabians, and though she imposed her laws on the conquered nations, and enforced them by her military organization, she had neither the desire nor the power to teach them a new faith; nor could she bind the various nations together into one great people, who should aid her with heart and hand in the mission she had undertaken.

It was, indeed, hardly possible that a poor and simple, but warlike and independent, people like the Arabs, could long exist close to the ruins of so wealthy and so overgrown an empire as that of Constantinople, without making an attempt to appropriate the spoil which the effeminate hands of its possessors were evidently unable to defend. It was equally impossible that so great a supervision of Christianity as then prevailed in Egypt and Syria could exist in a country which from the earliest ages had been the seat of the most earnest Monotheism without provoking some attempt to return to the simpler faith which had never been wholly superseded. So that on the whole the extraordinary success of Mahomedanism at its first outset must be attributed to the utter corruption, religious and political, of the expiring empire of the East, as much as to any inherent greatness in the system itself or the ability of the leaders who achieved the great work.

Had it been a mere conquest, it must have crumbled to pieces as soon as completed; for Arabia was too thinly populated to send forth armies to fight continual battles, and maintain so widely extended an empire. Its permanence was owing to the fact that the converted nations joined the cause with almost the enthusiasm of its original promoters, Syria, Persia, and Africa, in turn, sent forth their swarms to swell the tide of conquest and to spread the religion of Islam to the remotest corners of the globe.

To understand either Mahomedan history or art it is essential to bear this constantly in mind, and not to assume that, because the first impulse was given from Arabia, everything afterwards must be traced back to that primitive people: on the contrary, there was no great depopulation, if any, of the conquered countries, no great transplantation of races. Each country retained its own inhabitants, who, under a new form, followed their old habits and clung to their old feelings with all the unchangeableness of the East, and perhaps with even less outward change than is usually supposed. Before the time of Mahomet the Sabean worship of the stars was common to Arabia

and Persia, and a great part of the Babylonian Empire. The Jewish religion was diffused through Syria and parts of Arabia Egypt, long before the time of Mahomet, must have been to a great extent Arabian, as it now wholly is. In all these countries the religion of Mahomet struck an ancient chord that still vibrated among the people, and it must have appeared more as a revival of the past than as the preaching of a new faith.¹ In Spain alone colonization to some extent seems to have taken place, but we must not even there overlook the fact of the early Carthaginian settlements, and the consequent existence of a Semitic people of considerable importance in the south, where the new religion maintained itself long after its extinction in those parts of Spain where no Semitic blood is known to have existed.

So weak, indeed, in the converted countries was the mere Arabian influence, that each province soon shook off its yoke, and, under their own Caliphs, Persia, Syria, Egypt, Africa, and Spain soon became independent States, yielding only a nominal fealty to that Caliph who claimed to be the rightful successor of the Prophet, and, except in faith and the form of religion, the real and essential change was slight, and far greater in externals than in the innate realities of life

All this is more evident from the architecture than from any other department—without, at least, more study than most people can devote to the subject. The Arabs themselves had no architecture, properly so called. Their only temple was the Kaabah at Mecca, a small square tower, almost destitute of architectural ornament, and more famous for its antiquity and sanctity than for any artistic merit.

It is said that Mahomet built a mosque at Medina—a simple edifice of bricks and palm-sticks.² But the Koran gives no directions on the subject, and so simple were the primitive habits of the nomad Arabs, that had the religion been confined to its native land, it is probable that no mosque worthy of the name would ever have been erected. With them prayer everywhere and anywhere was equally acceptable. All that was required of the faithful was to turn towards Mecca at stated times and pray, going through certain forms and in certain attitudes, but whether the place was the desert or the housetop was quite immaterial.

For the first half century after the Mahomedans burst into Syria they seem to have built very little. The taste for architectural magnificence had not yet taken hold of the simple followers of the Prophet, and desecrated churches and other buildings supplied what wants they had. When they did take to building, about the end of the 7th century, they employed the native architects and builders, and easily converted the Christian church with its atrium into a place of prayer; and, then, by a natural growth of style, they gradually

¹ See Appendix, note 18.

² Abulfeda, ed. Reiske, vol. i. p. 32.

elaborated a new style of details and new arrangements, in which it is often difficult to trace the source whence they were derived.

In Egypt the wealth of ancient remains, in particular of Roman pillars, rendered the task easy, and mosques were enclosed and palaces designed and built with less thought and less trouble than had occurred almost anywhere else. The same happened in Barbary and in Spain. In the latter country, especially, a re-arrangement of Roman materials was all that was required. It was only when these were exhausted, after some centuries of toil, that we find the style becoming original; but its form was not that of Syria or of Egypt, but of Spanish birth and confined to that locality.

When the Turks conquered Asia Minor, their style was that of the Byzantine basilicas which they found there, and when they entered Constantinople they did not even care to carry a style with which they were familiar across the Bosphorus, but framed their mosques upon a type of church peculiar to that city, of which Sta. Sophia was the crowning example.

It is true that, after centuries of practice most of these heterogeneous elements became fused into a complete style. This style possesses so much that is entirely its own as to make it sometimes difficult to detect the germs, taken from the older styles of architecture, which gave rise to many of its most striking peculiarities. These, however, are never entirely obliterated. Everywhere the conviction is forced upon us that originally the Moslems had no style of their own, but adopted those which they found practised in the countries to which they came. In other words, the conquered or associated people still continued to build as they had built before their conversion, merely adapting their former methods to the purposes of their new religion. After a time this Mahomedan element thus introduced into the styles of different countries produced a certain amount of uniformity,—increased, no doubt, by the intercommunications arising from the uniformity of religion. In this way at last a style was elaborated, tolerably homogeneous, though never losing entirely the local peculiarities due to the earlier styles out of which it rose, and which still continue to mark most distinctly the various nationalities that made up the great Empire of Islam.

CHAPTER II

SYRIA AND EGYPT.

CONTENTS.

Mosques at Jerusalem—El-Aksah—Mosque at Damascus—Egypt—Mosques at
Cairo—Other African buildings—Mecca

CHRONOLOGY.

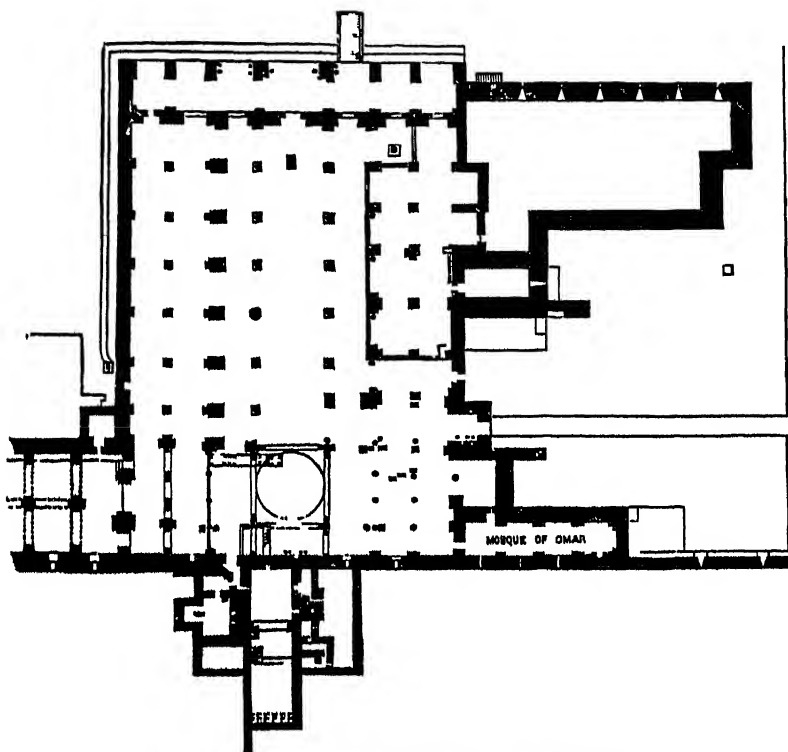
	DATES.		DATES.
	A.D.		A.D.
The Hejira	622	Ibn Tooloon at Cairo	879
Caliph Omar builds Mosque at Jerusalem	637	Kaloun	1284
Amru—Mosque at Old Cairo	642	Sultan Hassan	1356
Abd el-Malek builds El-Aksah at Jerusalem and the "Dome of the Rock"	691	Sultan Berkook	1396
Caliph Walid builds Mosque at Damascus	705	Kalt-bey	1490

As before mentioned, the earliest mosque of which we have any record was that built by Mahomet himself at Medina. As, however, it contained apartments for his wives, and other rooms for domestic purposes, it might perhaps be more properly denominated a dwelling house than a mosque. Indeed sacred buildings, as we understand them, seem to have formed no part of the scheme of the Mahomedan dispensation. The one temple of this religion was the Kaabah at Mecca, towards which all believers were instructed to turn when they prayed. As with the ancient Jews—one Temple and one God were the watchwords of the faith.

When, however, the Mahomedans came among the temple-building nations, they seem early to have felt the necessity of some material object—some visible monument of their religion; and we find that Omar, when he obtained possession of Jerusalem, in the 15th year of the Hejira, felt the necessity of building a place of prayer towards which the faithful might turn, or rather which should point out to them the direction of Mecca.

According to the treaty of capitulation, in virtue of which the city was ceded to the Moslems, it was agreed that the Christians should retain possession of all their churches and holy places; and no complaint is made of even the slightest attempt to infringe this article during the following three centuries. On the other hand, it was stipulated that a spot of ground should be ceded to Omar, in which

he might establish a place of prayer. For this purpose the site of the old Temple of the Jews was assigned to him by the patriarch, that spot being considered sacred by the Moslems, on account of the nocturnal visit of the Prophet, and because they then wished to conciliate the Jews, while at the same time the spot was held accursed by the Christians on account of the Lord's denunciation and Julian's impious attempt to rebuild it. Here Omar built a mosque, which is described by an early pilgrim who saw it, as a simple square building of timber



670.

Plan of the Mosque el-Aksah at Jerusalem. Scale 100 ft. to 1 in.

capable of holding three thousand people, and constructed on the ruins of some more ancient edifice.¹

The troubles which, during the next half-century, succeeded the murder of Ali and his sons, seem to have been unfavourable to building or any of the arts of peace, and no record has yet been brought to light of any important structure erected during that period. In the 69th year of the Hejira, Abd el-Melik, the Caliph of Damascus, determined to erect a mosque at Jerusalem. His objects were to set up that city as a place of pilgrimage in opposition to

¹ 'The History of Jerusalem.' Besant and Palmer, 1888.

Mecca, which was then in the possession of a rival, and to carry into effect what was at one time understood to have been the intention of Mahomet, namely, to convert the temple of Jerusalem into the holy place of his new religion, instead of that of Mecca. These ulterior purposes were never realised, in consequence of the violent opposition which the project met with from the Jews.

The mosque which Abd el-Melik erected was, according to Professor Lewis,¹ partially destroyed by earthquakes in the years 748, 755 and 770 A.D., and was rebuilt by El Mahdi in 771-781 A.D., with increased



971.

View in the Mosque el-Aksa at Jerusalem.

lateral dimensions but diminished in length. From the description given by Mukaddasi,² the building, thus restored, covered a very much larger area than the existing mosque, there being as many as seven aisles on each side of the central aisle. Professor Lewis, in the work above quoted, gives a suggested restoration of the plan, which in the first place resembles very closely the prayer chambers of the typical Mahomedan

¹ 'The Holy Places of Jerusalem,' by T Hayter Lewis, F.S.A. Murray, 1889

Translated and annotated by George le Strange for the Palestine Pilgrims' Society. London, 1886.

² 'Description of Syria,' by Mukaddasi

mosques at Amru in Old Cairo, Kerouan in Barbary, and Cordoba in Spain ; and in the general plan coincides so nearly in the position of its piers and columns with the existing building, so far as it extends, as to give a reasonable probability to his suggestion. When Jerusalem was taken by the Crusaders, the Aksah was converted by them into a palace, and some of their work is still to be seen in the arcades at the north end. After the conquest of Saladin he carried out extensive restorations ; he covered the Mihrab, which had been walled off by the Crusaders, and decorated it with marble : he erected the magnificent pulpit which had been sent from Aleppo, and rebuilt the transept with its dome as we now see it.

As the Aksah exists at present it has the appearance of an ordinary basilica with nave and aisles, to which double aisles have been added on each side. This would suggest that the three central aisles of the mosque were raised above the rest of the building in order to obtain increased light through clerestory windows both in central and side aisles. This, however, may have been done by El Mahdi, who also built the transept and dome, because they are mentioned by Mukaddasi (985 A.D.), who says "the centre part of the main building is covered by a mighty roof, high pitched and gable-wise, behind which rises a magnificent dome." The mosque (Woodcut No. 971) is 187 ft. wide and 272 ft. in length over all, thus covering about 50,000 sq. ft., or as much as many of our cathedrals. It has a porch, which is a later addition, but has not the usual square court in front, possibly because it was already within the enclosure of the sacred area. "The interior is supported," says an Arab historian,¹ "by 45 columns, 33 of which are of marble, and 12 of common stone, besides which there are 40 piers of common stone." Later investigation has shown that the main piers of the church are built with materials taken from some earlier edifice : the circular piers of the nave, for instance, are of a reddish marble from quarries near Jerusalem, patched up and bound together with iron rings, the whole being plastered over, painted and polished in imitation of marble, and Professor Lewis suggests that they may have been taken from Justinian's Church of St. Mary (described by Procopius), which was burnt and thrown down by Chosroes in 614 A.D.

Although extremely picturesque, as an architectural object the Aksah is of no great importance, the only portions which can lay any claim to beauty being the arches carried on basket-capitals, which were erected by the Crusaders, and the later decorations of Saladin and other Sultans who enriched the south portion of the mosque near the Mihrab : it must also be added that it suffers very considerably from its juxtaposition with the Dome of the Rock, which, though constructed by the same Abd el-Melik who founded the Aksah, has been added to and

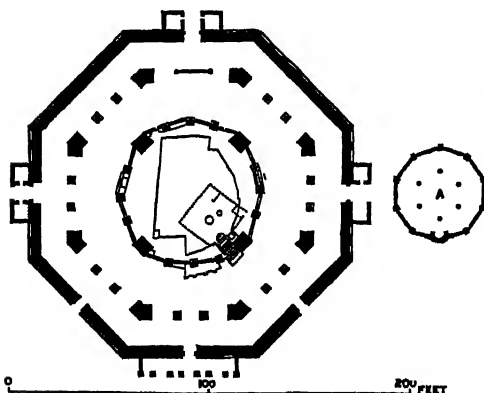
¹ Mejr ed-Deen. 'FUNDGRUBEN DES ORIENTS.'

decorated in so sumptuous a manner by succeeding khalifs as to render it one of the most beautiful buildings in the world.

The first drawings which were made of the Dome of the Rock (Cubbet-es-Sakra, more generally known as the Mosque of Omar) by Messrs. Arundale and Catherwood (probably under great difficulties, for the sacred enclosure was not then thrown open to the gaze of unbelievers), represented the work as one of uniform design. The more careful examination which has been made in later years has revealed that the columns, capitals and bases of the main structure were taken from some earlier buildings and adapted in the best way, a high base making amends for a small capital, and new ones only being made when it became necessary. On this point Major Condor says,¹ "only three of the capitals under the drum are alike, the rest differ in size, in outline, and in details. One of the capitals is evidently placed on a shaft which did not originally belong to it, but

which required a large capital. The sixteen capitals in the screen are more uniform."

"two of those capitals are, however, of entirely different design, and their shafts longer than the others." "The original bases are now covered with marble flagging," "but this was removed in 1874, and it was then found that they differed in

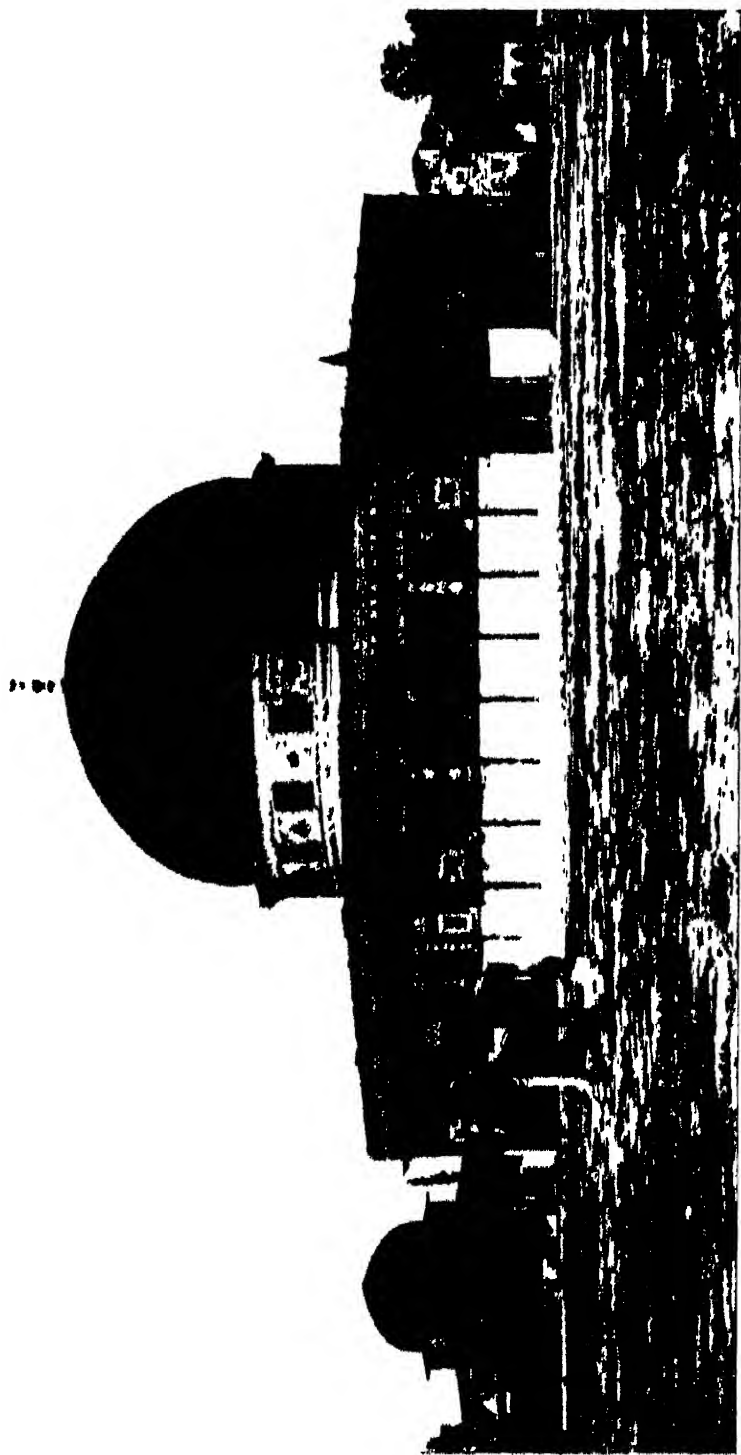


972. Plan of the Dome of the Rock (Mosque of Omar) Jerusalem.

outline and height, viz. from 4 to as much as 17 inches."

The plan (Woodcut No. 972), consists of a central hall over the Sakhra, or sacred rock, with double aisles round. The hall is divided from the first aisle by 4 piers, with 3 columns between each; these 16 supports carry 3-centred arches (virtually pointed arches, whose centres are distant from one another by about one-fourth of the span, with the point of the arch rounded off) with wooden tie-beams. Above these arches rises a lofty cylindrical drum, the upper portion of which is pierced with 16 clerestory windows; the whole covered by a wooden dome, richly carved, painted and gilded. The screen which divides the first aisle from the surrounding one is octagonal, with piers at each angle, and two columns between each; these columns are surmounted by capitals, dossierets, and carry wood beams encased in rich archi-

¹ Transactions of the Royal Institution of British Architects, 1878-79.



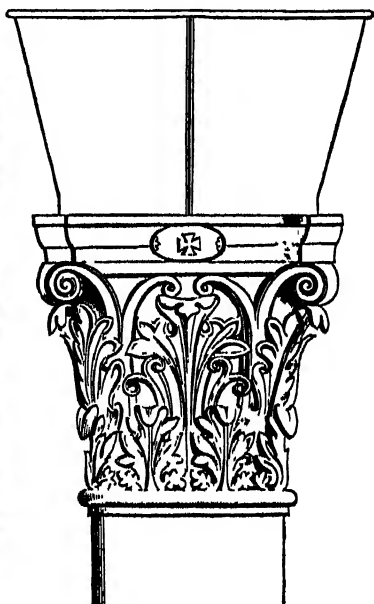
MOSQUE OF OMAR, JERUSALEM

trave framing, and circular arches above with a frieze decorated with an inscription above, now partially hidden by later restorations. The outer wall is also octagonal, with four doorways facing the cardinal points, and a parapet, the pent roof over both aisles being continuous.

The history of the structure has been carefully worked out by Professor Lewis, taken from various ancient authors, compiled in part by Messrs. Besant and Palmer, from which it would seem that Abd-el-Melik, having first built a small dome known as the Cubbet-es-Silsileh (Dome of the Chain) (A, Woodcut No 972), for a treasury, was so pleased with the work that he ordered the great dome over the Sakhra



973. View in Aisle of Dome of Rock. (From a Drawing by Cathetwood.)

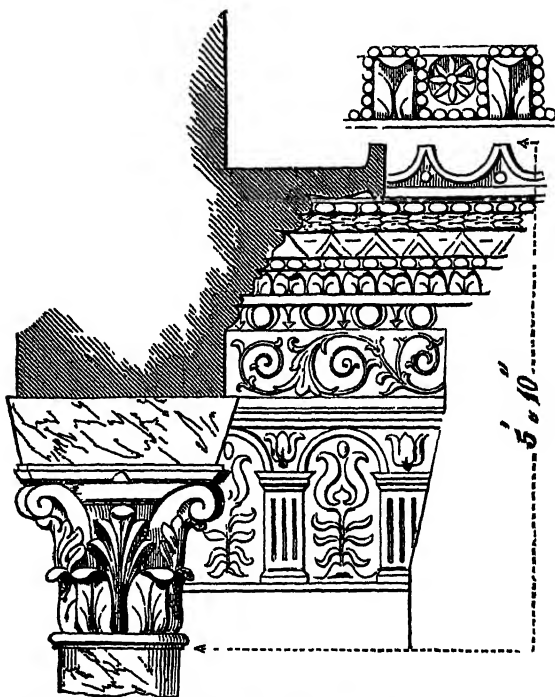


974. Capital in Dome of Rock. (From De Vogüé.)

to be built on the same model. The structure thus erected (shown in black on the plan, Woodcut No. 972), was executed by skilled workmen from Persia, Byzantium, and India. It was hung round with curtains of brocade, probably protected by eaves as in the Cubbet-es-Silsileh. Owing possibly to the inclemency of the weather, the Khalif el-Mamun (813-33) enclosed the whole with the octagonal wall, and made various alterations, including the erasure of Abd-el-Melik's name in the frieze before alluded to, and the insertion of his own, the date being untouched. To this period (9th century) may also be attributed the mosaic decorations of the drum, though a later date is by some ascribed to them. The dome was rebuilt by Saladin, 1189, and although restored, is substantially the same as erected by him. In the 16th

century the whole building was restored by Solyman the Magnificent, who encased the piers of the interior and the arches covered by them with marble, filled the clerestory windows with stained glass, and encased with marble and Persian tiles the external walls.

Notwithstanding the various additions and restorations which have thus therefore been made from time to time, the whole structure retains at first sight one uniform character in its design, and it is only on a careful analysis of its several parts that it is possible to distinguish the dates of the various changes. The effect which is produced by the



975.

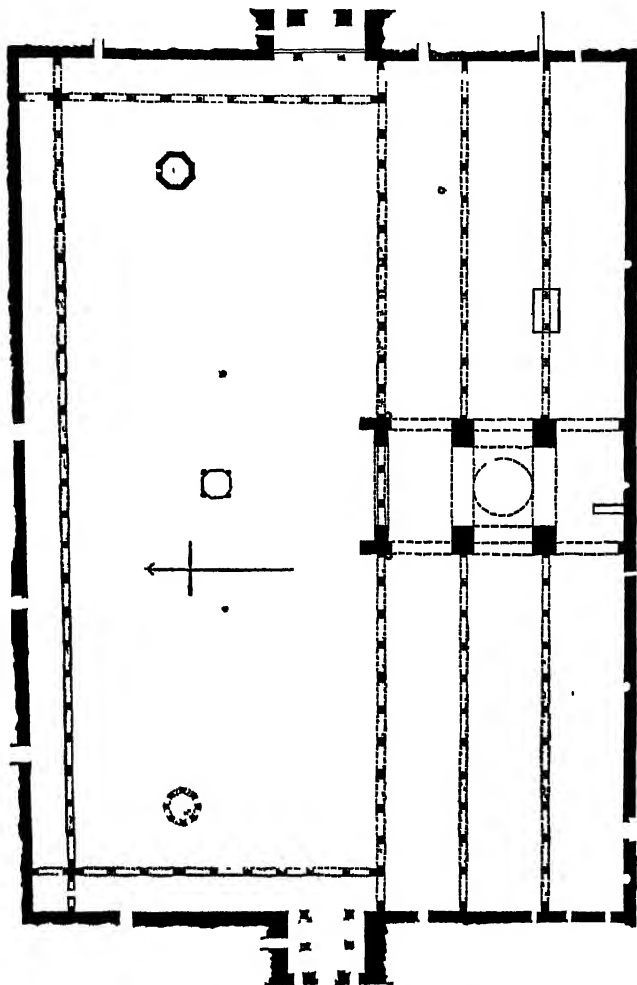
Order of the Dome of the Rock. (From a Drawing by Arundale.)

whole is quite unrivalled by any other known building of its class. It has not, of course, the splendour and magnificence arising from the vastness and constructive beauty of such a church as *Sta Sophia* at Constantinople, but for its dimension, there is probably no building in the world the design of which is at the same time so beautiful and so appropriate for the purposes for which it was erected.

MOSQUE AT DAMASCUS.

As an architectural object the great mosque at Damascus is even more important than the *Aksah*, and its history is as interesting. The spot on which it stands was originally occupied by one of those

small Syrian temples, surrounded by a square *temenos*, of which those at Palmyra and Jerusalem are well-known examples¹ The one in question was, however, smaller, having been apparently only 450 ft. square; and we do not know the form of the temple which occupied



976. Plan of Mosque at Damascus. By Sir Charles Wilson. Scale 100 ft. to 1 in.

its centre.² This temple was converted into a Christian church by Theodosius (395-408), and dedicated to St. John the Baptist, whose chapel still exists within the precincts of the mosque.

¹ Ante, p. 228, vol. i.

² I state these dimensions very doubtfully, the ground outside the present mosque never having been carefully surveyed by any one competent to restore the original plan.

According to Jelal ed-Deen,¹ the church remained the joint property of the Christians and Moslems, both praying together in it—or, at least, on the east and west sides of a partition run through it—from the fall of the city in the year of the Hejira 14 (A.D. 636) to the time of the Caliph Walid in the year 86. He offered the Christians either four desecrated churches in exchange for it, or threatened to deprive them of one which they held on sufferance. As soon as the matter was settled, it is said, he pulled down the Christian church, or at least part of it, and in ten years completed the present splendid mosque on its site, having first procured from the emperor at Constantinople fit and proper persons to act as architects and masons in its construction.

If the building were carefully examined by some competent person, it might even now be possible to ascertain what parts belonged to the Heathen, what to the Christians, and what to the Moslems. At first sight it might appear that the covered part of the mosque is only the Christian church, used laterally like that at Ramleh; but its dimensions—126 ft. by 446—are so much in excess of any three-aisled church of that age, that the idea is hardly tenable. On the whole, it seems probable that we must consider that the materials which had first been collected for the Temple, and were afterwards used in the church, were entirely rearranged by the Mahomedans in the form in which we now find them.

Like all buildings in the first century of the Hejira, it was so badly done that nearly all the pillars of the court have since that time been encased in piers of masonry. The walls have been covered up with plaster, and whitewash has obliterated the decoration which once existed, and which is still visible where the plaster has peeled off. It is still, however, interesting from its history, venerable from its age, and important from its dimensions. These are, externally, 508 ft. by 320, and the enclosed court 400 ft. by 106. So that, in so far as size is concerned, it may rank among the first of its class, and it has always been considered so sacred, that repairs and additions have constantly been made to it since its erection, more than eleven centuries ago, but, as in the case of its contemporary the Aksah at Jerusalem, the result is far from satisfactory. In this respect, these two buildings form, as just mentioned, a most singular contrast with the Dome of the Rock at Jerusalem (Woodcuts Nos. 973 to 975). That is perfect—solemn and solid, and one of the most impressive buildings in the world, both externally and internally; while the other erections of the Moslems are rickety, in spite of all repairs, and produce no impression of greatness notwithstanding their dimensions and antiquity.

¹ 'History of Jerusalem,' translated by the Rev. M. Reynolds, p. 409 *et seqq.*

The additions made by the Moslems to the mosque at Hebron (Woodcut No 542) are mean and insignificant to the last degree ; and beyond these, it is difficult to say what there is in Syria built by them that is worthy of attention

There are some handsome fountains at Jerusalem, some details at Hasbeiya, a few large khans at Beisan and elsewhere, and some very fine city gates and remnants of military architecture ; but the tombs are insignificant, and except the two mosques described, there seems to be no example of monumental architecture of any importance. The one building epoch of the country occurred when the Roman influence was at its height, during the first five centuries of the Christian era. Since that time very little has been done, except by the Crusaders, worthy of record, and before it nothing, that, from an architectural point of view, would deserve a place in history.

EGYPT.

In Egypt our history begins with the mosque which Amru, in the 21st year of the Hejira (A D. 642) erected at Old Cairo, its original dimensions were only 50 cubits, or 75 ft. long, by 30 cubits, or 45 ft. wide. Edrisi¹ says that it was originally a Christian church which the Moslems converted into a mosque ; and its dimensions and form would certainly lead us to suppose that, if not so, it was at least built after the pattern of the Christian churches of that age. As early, however, as the 53rd year of the Hejira it was enlarged, and again in the 79th ; and it apparently was almost wholly rebuilt by the two great builders of that age, Abd-el-Melik and Walid, the builders of the mosques of Jerusalem and Damascus.

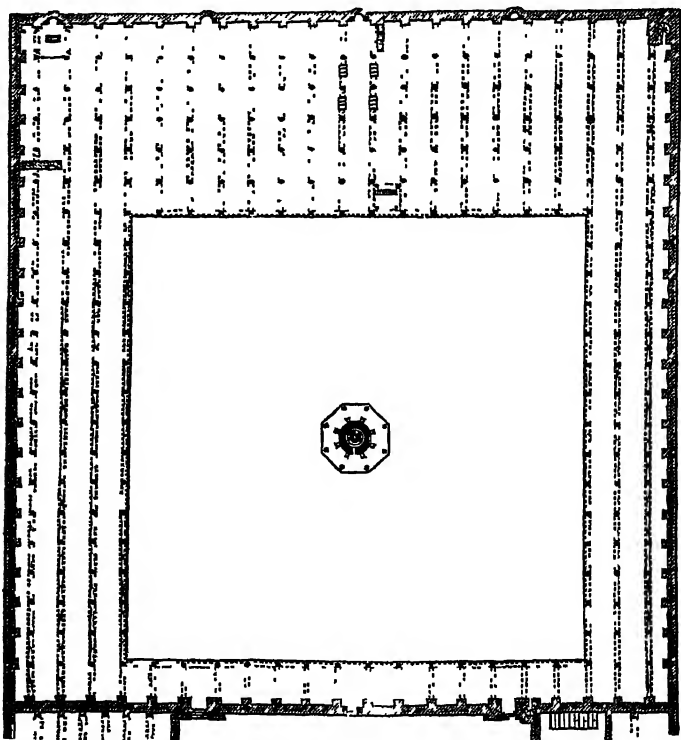
It probably now remains in all essential parts as left by these two Caliphs, though frequently repaired, and in some parts probably altered by subsequent sovereigns of Egypt. In its present state it may be considered as a fair specimen of the form which mosques took when they had quite emancipated themselves from the Christian models, or rather when the court before the narthex of the Christian church had absorbed the basilica, so as to become itself the principal part of the building, the church part being spread out into a prayer chamber (Mihrab) and its three apses modified into niches pointing towards the sacred Mecca.

As will be seen from the plan (Woodcut No 977), it is nearly square (390 ft. by 357), and consists of a court-yard, 255 ft. square, surrounded on all sides by arcades supported by 245 columns taken

¹ Translated by Jaubert, tom i p 303 | Prangey 'Monuments Arabes,' compared
The particulars of the description in the | with M. Coste's 'Edifices de Caire'
text are taken from M. Girault de

from older edifices of the Romans and Byzantines.¹ These columns carried brick arches,² tied at their springing by wooden beams, as in the Aksah. All this part of the mosque, however, has been so often repaired and renovated, that but little of the original details can now remain.

Of the original mosque, the only part that can with certainty be said to exist is a portion of the outer wall, represented in Woodcut No. 978, which possesses the peculiarity of being built with pointed arches, similar in form to those of the Aksah at Jerusalem. They are



977. Mosque of Amru, Old Cairo. (From Coste's 'Architecture Arabe.') Scale 100 ft. to 1 in.

now built up, and must have been so at the time of one of the earlier alterations; still they are, from their undoubted antiquity, a curious contribution to the much-contested history of the pointed arch. Notwithstanding the beautiful climate of Egypt, the whole mosque is now in a sad state of degradation and decay, arising principally from its

¹ It should be noted that all these

arcades run in the direction of the Kibleh or Mecca wall, and the same principle is observed at Kerouan, Cordoba, and other mosques built entirely for Ma-

homedan worship

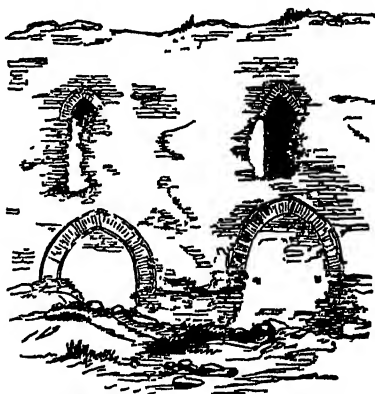
² M. Coste makes all these arches pointed. M. de Prangey states that they are all circular; the truth being that they are partly one, partly the other.

original faulty construction. Owing to the paucity of details, many of M. Coste's restorations must be taken as extremely doubtful.

From the time of the great rebuilding of the mosque of Amru under Walid, there is a gap in the architectural history of Egypt of nearly a century and a half, during which time it is probable that no really great work was undertaken there, as Egypt was then a dependent province of the great Caliphate of the East. With the recovery, however, of something like independence, we find one of its most powerful rulers, Ibn Tooloon, commencing a mosque at Cairo (A.D. 876), which, owing to its superior style of construction, still remained in tolerable perfection till about 1860.¹

Tradition, as usual, ascribes the design to a Christian architect, who, when the Emir declined to use the columns of desecrated churches for the proposed mosque, offered to build it entirely of original materials. He was at first thrown into prison through the machinations of his rivals, but at last, when they found they could not dispense with his services, was again sent for, and his design carried out.²

Be this as it may, the whole style of the mosque shows an immense advance on that of its predecessor, all trace of Roman or Byzantine art having disappeared in the interval, and the Saracenic architecture appearing complete in all its details, the parts originally borrowed from previous styles having been worked up and fused into a consentaneous whole.



978. Arches in the Mosque of Amru. (From G. de Prang's Work)

The architect is said to have been a Copt, and if so this would explain the development of style, Mr. Butler's work on the Coptic churches of Egypt,³ proving clearly that, long previous to the buildings of Tooloon, a style had been developed by the Copts with ornaments of a geometrical character similar to that which is found in Tooloon.⁴ From

¹ Since then the arches have been built up, and it was for a time converted into a hospital. This now (1892) is under the care of the Commissioner for the preservation of ancient monuments, but is too far ruined to be long preserved.

² See Coste's 'Edifices de Caire,' p 32, quoting from Makrisi.

³ 'The Ancient Coptic Churches,' by A. J. Butler, Oxford, 1884.

⁴ The marble wall decoration and the mosaics which are found in later mosques are of different design and execution from that found in Byzantine buildings, in fact as Mr. Butler remarks: "this form of art was borrowed by the Muslim builders, or rather was lent by the Coptic architects and builders, whom the Muslims employed for the construction of their mosques." "Although the Saracens in

this time we find no backsliding, the style in Egypt at last takes its rank as a separate and complete architectural form. It is true,



979. Mosque of Ibn Tuloun at Cairo. (From Coste's 'Architecture Arabe'.)

that in so rich a storehouse of materials as Egypt, the architects could not always resist appropriating the remains of earlier buildings; but

Syria borrowed the art from Byzantium and used vitreous enamels for the decoration of their mosque walls, as well as for inlaying jewelry and steel armour on a smaller scale, yet the Mahomedans of Egypt never adopted any but the native or Coptic marble mosaic, partly because its

unpictorial character suited their taste, and partly because they found, ready made, both art and artists—artists whose names have perished, but whose skill is still recorded in work of unexampled splendour which adorns the great Mosques of Cairo.”

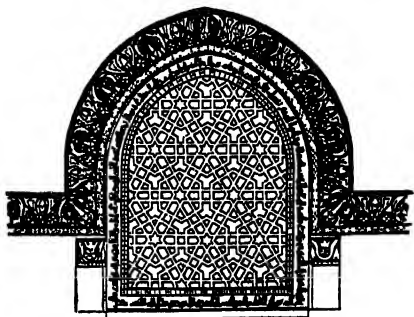
when they did this, they used them so completely in their own fashion, and so worked them into their own style, that we do not at once recognise the sources from which they are derived.

To return, however, to the mosque of Tooloon. Its general arrangement is almost identical with that of the mosque of Amru, only with somewhat increased dimensions, the court being very nearly 300 ft. square, and the whole building 390 ft. by 455. No pillars whatever are used in its construction, except as engaged corner shafts; all the arches, which are invariably pointed, being supported by massive piers. The court on three sides has two ranges of arcades, but on the side towards Mecca there are five; and with this peculiarity, that instead of the arcades running at right angles to the Mecca wall (as in the mosques of Amru and Kerouan) they run parallel to it. This may be accounted for by the great solidity of the walls carried by these arches, and the fact that the thrust of the latter could not have been counteracted by the wooden ties which suffice in the two examples above mentioned. By running the arcade the other way, the arches served as abutments one to the other, carrying the thrust to the outer walls, which are of great thickness. The same principle is observed on the other three sides, which in each case lie parallel to the external wall.

The whole building is of brick, covered with stucco; and fortunately almost every opening is surrounded by an inscription in the old form of Cufic characters, which were then used, and only used, about the period to which the mosque is ascribed, so that there can be no doubt as to its date. Indeed, the age both of the building itself and of all its details, is well ascertained.

The Woodcut No 979 will explain the form of its arcades, and of the ornaments that cover them. Their general character is that of bold and massive simplicity, the counterpart of our own Norman style. A certain element of sublimity and power, in spite of occasional clumsiness, is common to both these styles. Indeed, excepting the Mosque of Sultan Hassan, there is perhaps no mosque in Cairo so imposing and so perfect as this, though it possesses little or nothing of that grace and elegance which we are accustomed to expect in this style.

Among the more remarkable peculiarities of this building is the mode in which all the external openings are filled with that peculiar sort of



980.

Window in Mosque of Ibn Tooloon.

tracery which became as characteristic of this style as that of the windows of our churches five centuries afterwards is of the Gothic

style. With the Saracens the whole window is filled, and the interstices are small and varied; both which characteristics are appropriate when the window is not to be looked out of, or when it is filled with tinted glass; but of course are utterly unsuitable to our purposes. It is doubtful, even now, whether the Saracenic did not excel the Christian architects, even in their best days, in the elegance of design and variety of invention displayed in the tracery of their windows. In the *mosque* of Ibn Tooloon it is used as an old and perfected invention, and with the germs of all those angular and flowing lines which afterwards were combined into such myriad forms of beauty.

It is possible that future researches may bring to light a building, 50 or even 100 years earlier than this, which may show not only as complete an emancipation from Christian art; but for the present it is from the mosque of Tooloon (A.D. 885) that we must date the complete foundation of the new style. Although there is considerable difficulty in tracing the history of the style from the erection of the mosques of Damascus and Jerusalem to that of Tooloon, there is none from that time onwards. Cairo alone furnishes nearly sufficient materials for the purpose.

The next great mosque erected in this city was El-Azhar, or "splendid" built in the year A.D. 981 by the Arabs of Kerouan on the type of their own mosque. This has been rebuilt in later times, according to Mr. Carpenter¹ it preserves the proportions of its original plan. It is said to have been converted into a university in 1199, but was overthrown by an earthquake in 1303, and subsequently entirely rebuilt and restored by various sultans.

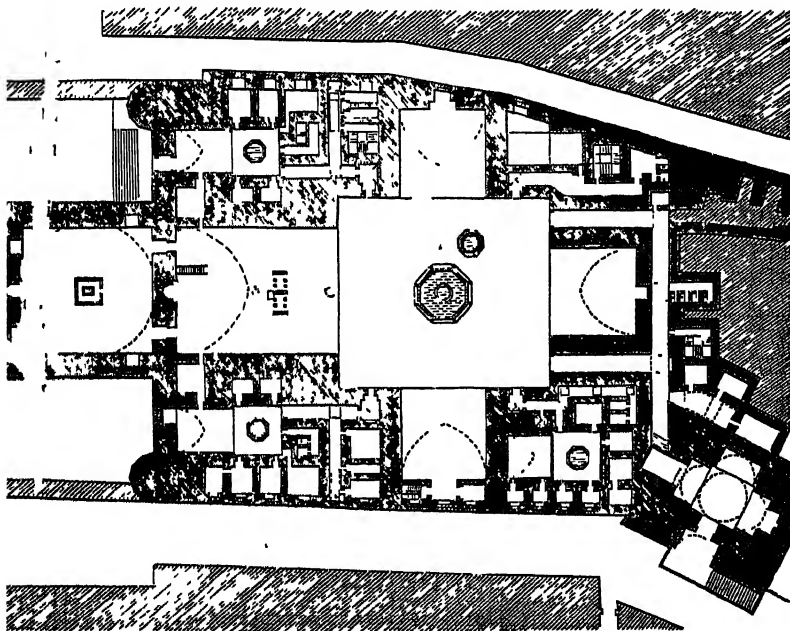
The Mosque of Al Hâkim was built in the beginning of the 11th century. Portions of the arcades still remain, which show it to have been of the same type as Tooloon, with pointed and slightly horseshoe arches, and engaged angle shafts, which in Tooloon are probably the earliest examples of that feature extant. In the place of the minarets are two Mabkârehs or square tombs with small minarets on the top.

The buildings during the next two centuries are neither numerous nor remarkable in size, though progress is very evident in such examples as exist, and towards the commencement of the 13th century we find the style almost entirely changed. The Mosque of El-Dhahir (1268), now used as a fort, is remarkable for the ornament around the arches of two of its porches, which would prove it to be of Norman origin. It consists of a chevron or zigzag in one case, and of moulded mullions in the other, similar to those found in the porch of the Holy Sepulchre at Jerusalem, attributed to the Crusaders, and in the tower of the Martorana at Palermo.

¹ The mosque cathedrals of Cordoba and Seville and the contemporary Arabic buildings. Transactions, R.I.B.A., 1882-83.

The mosque of Kalaoon and the hospital attached to it (A.D. 1287) are both noble buildings, full of the most elegant details, and not without considerable grandeur in parts. In all except detail, however, they must yield the palm to the next great example, the mosque with which the Sultan Hassan adorned Cairo in the year 1356. In some respects it is one of the most remarkable mosques ever erected in any country, and differing considerably from any other with which we are at present acquainted.

As will be seen from the plan (Woodcut No. 981), its external form is very irregular, following on all sides the lines of the streets within



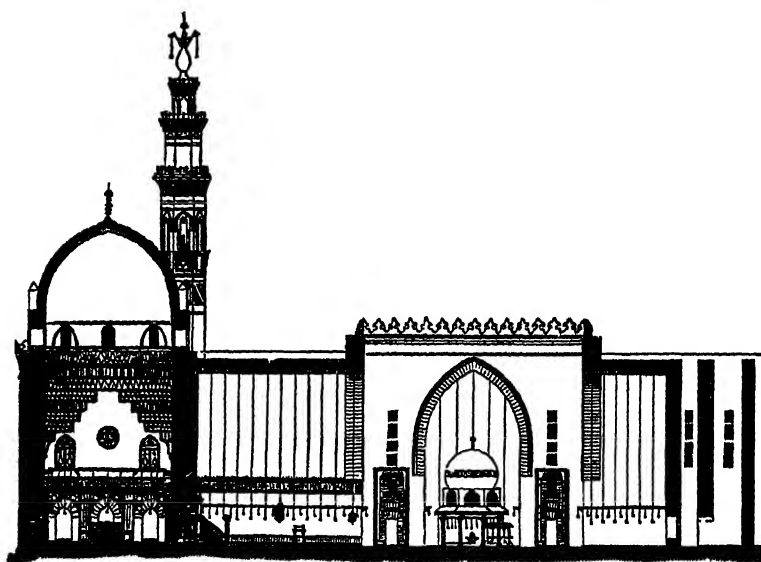
981. Mosque of Sultan Hassan. (From Coste's 'Architecture Arabe') Scale 100 ft to 1 in

which it is situated. This irregularity, however, is not such as to detract from its appearance, which is singularly bold and massive on every side; the walls being nearly 100 ft. in height, and surmounted by a cornice, which adds another 13 ft., and projects about 6 ft. This great height is divided into no less than nine storeys of small apartments, but the openings are so deeply recessed, and the projections between them so bold, that, instead of cutting it up and making it look like a factory, which would have been the case in England, the building has all the apparent solidity of a fortress, and seems more worthy of the descendants of the ancient Pharaohs than any work of modern times in Egypt.

Internally there is a court open to the sky, measuring 117 ft. by

105, enclosed by a wall 112 ft. in height. Instead of the usual colonnades or arcades, only one gigantic niche opens in each face of the court. On three sides these niches measure 46 ft. square; but on that which faces Mecca, the great niche is 69 ft. wide by 90 in depth, and 90 ft. high internally. All four are covered with simple tuni- vaults of a pointed form, without either ribs or intersections, and for simple grandeur are unrivalled by any similar arches known to exist anywhere.

Behind the niche pointing towards Mecca is the tomb of the founder, square in plan, as these buildings almost always are, measuring 69 ft. each way, and covered by a lofty and elegant dome resting on pendentives of great beauty and richness. It is flanked on each side by two

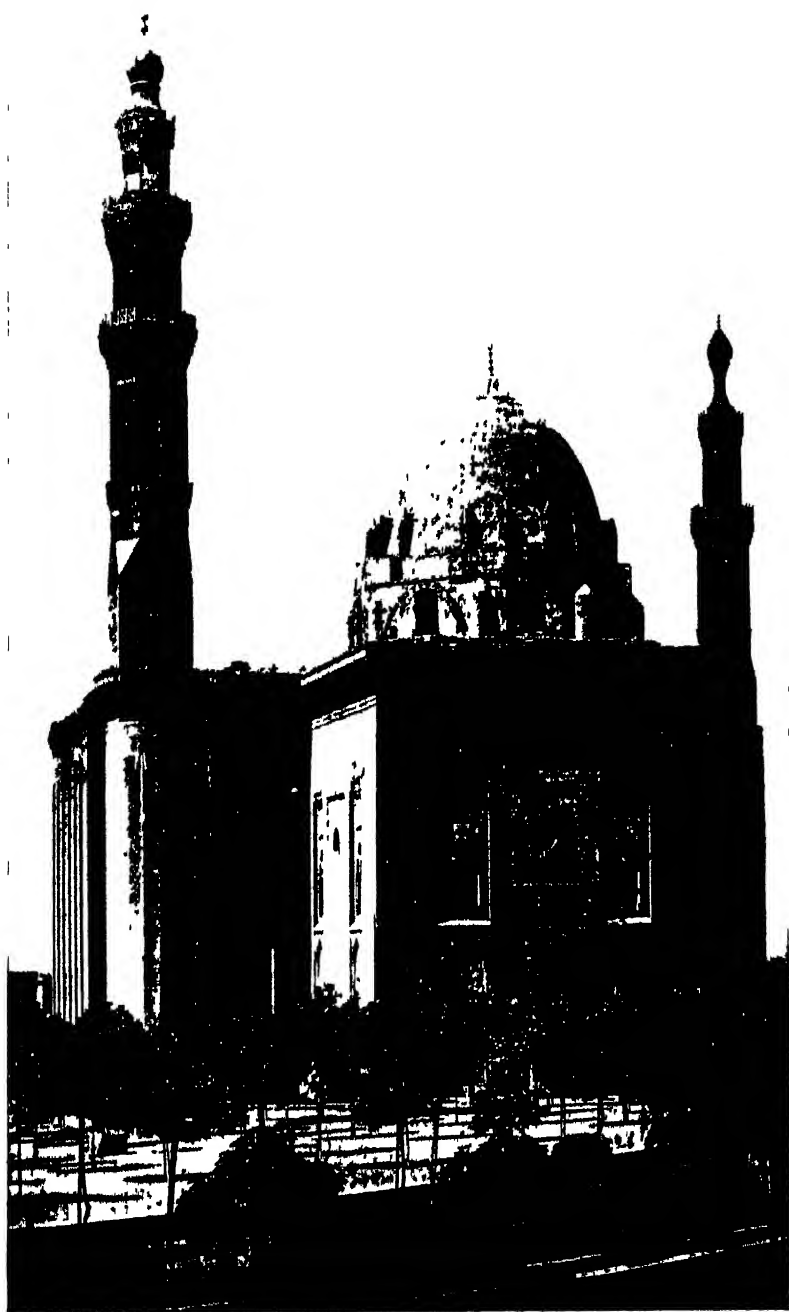


282.

Section of Mosque of Hassan, Cairo. Scale 100 ft. to 1 in.

noble minarets, one of which is the highest and largest in Cairo and probably in any part of the world, being 280 ft. in height and of proportionate breadth. Its design and outline, however, are scarcely so elegant as some others, though even in these respects it must be considered a very beautiful example of its class.

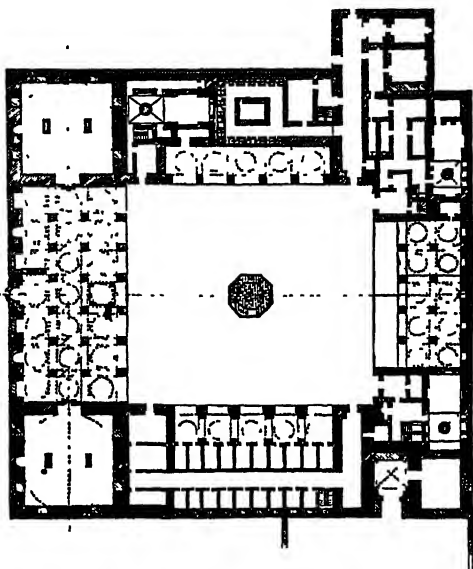
One of the principal defects of this building is the position of its doorway, which, instead of facing the *kibleh* or niche pointing towards Mecca, is placed diagonally, in the street alongside of the building. It is a very beautiful specimen of architecture in itself; still its situation and the narrow passages that led from it to the main building detract most materially from the effect of the whole edifice, which in other respects is so perfect. It may have been that ground could not be obtained for the purpose of placing the entrance in the right



MOSQUE OF SULTAN HASSAN, CAIRO

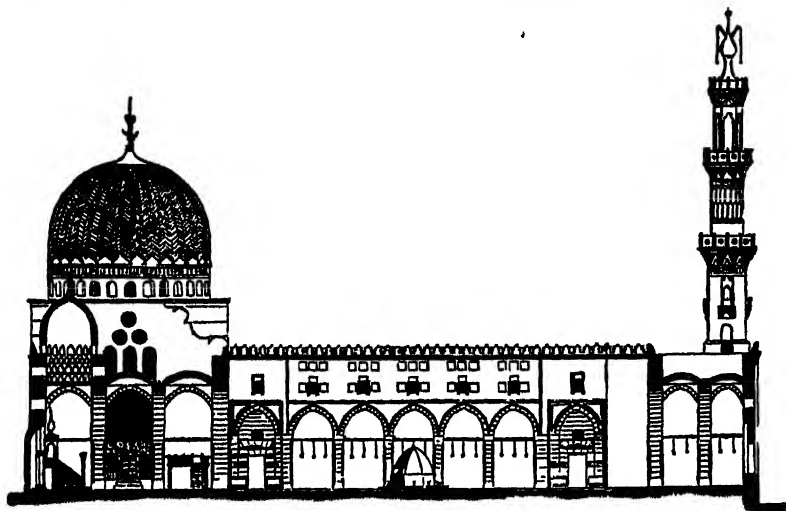
position, but more probably it was so arranged for the sake of defence, the whole structure having very much the appearance of a fortalice, and being without doubt erected to serve that purpose, as well as being adapted for a house of prayer.

One of the finest buildings of the 14th century is that built by Sultan Berkook outside the walls of Cairo (A.D. 1384), which, besides a mosque, contains an additional feature in the great sepulchral chambers which are in fact the principal part of the edifice, and betray the existence of a strong affinity to the tomb-building races in the rulers of Egypt 983.



Plan of Mosque and Tombs of Sultan Berkook.
(From Coste) Scale 100 ft. to 1 in.

The plan and section (Woodcuts Nos 983, 984), though small, will show the state to which the art had at that period arrived in Egypt.



984. Section of Mosque of Berkook. (From Coste's 'Architecture Arabe.')

The pointed arch, as will be observed, is used with as much lightness and elegance as ever it reached in the West.

The dome has become a truly graceful and elaborate appendage, forming not only a very perfect ceiling inside, but a most imposing ornament to the exterior. Above all, the minaret has here arrived at as high a degree of perfection as it ever reached in any after age.

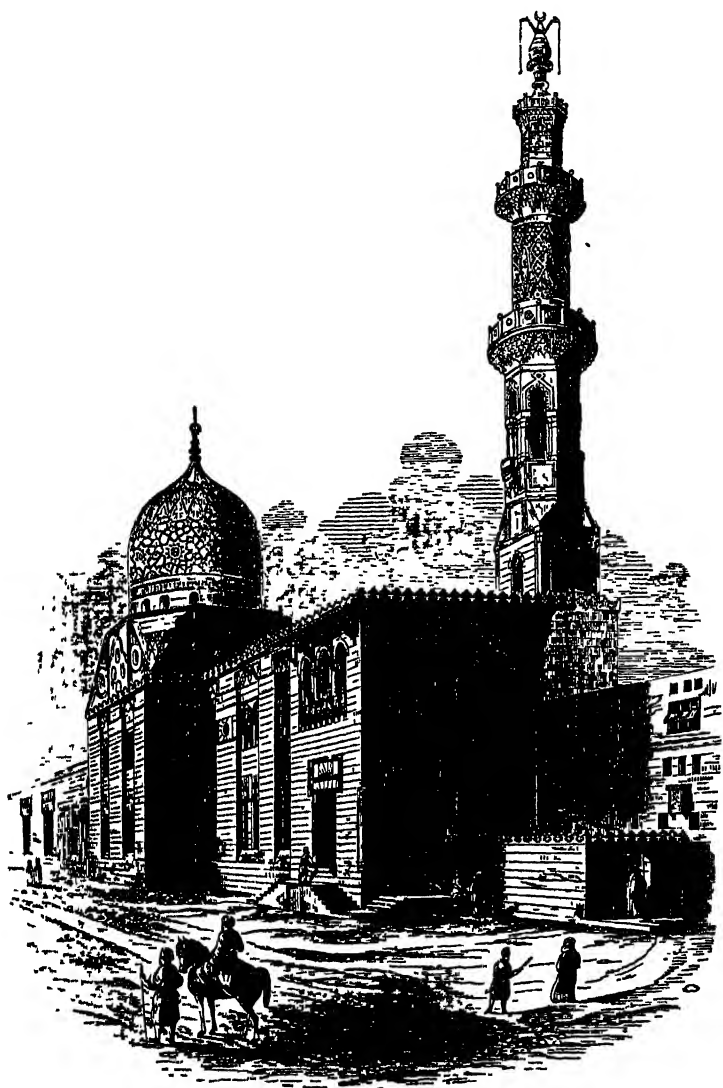
The oldest known example of this species of tower is that of the mosque of Ibn Tooloon, but it is particularly ungraceful and clumsy. The minaret in that of Amru was probably a later addition. But it is only here in Berkook that they seem to have acquired that elegance and completeness which render them perhaps the most beautiful form of tower architecture in the world. Our prejudices are of course with the spires of our Gothic churches, and the Indians erected some noble towers; but taken altogether, it is doubtful if anything of its class ever surpassed the beauty and elegance of the minarets attached to the mosques during this and subsequent centuries.

The mosque El Muayyad, erected in 1415 A.D., is a singularly elegant specimen of a mosque with columns. Externally it measures about 300 ft. by 250, and possesses an internal court, surrounded by double colonnades on three sides, and a triple range of arches on the side looking towards Mecca, where also are situated—as in that of Berkook—the tombs of the founder and his family. A considerable number of ancient columns have been used in the erection of the building, but the superstructure is so light and elegant, that the effect is agreeable; and of the “mixed mosques”—*i.e.*, those where ancient materials are incorporated—this is one of the most pleasing specimens.

Perhaps the most perfect gem in or about Cairo is the mosque and tomb of Kaitbey (Woodcut No. 985), outside the walls, erected A.D. 1472. Looked at externally or internally, nothing can exceed the grace of every part of this building. Its small dimensions exclude it from any claim to grandeur, nor does it pretend to the purity of the Greek and some other styles; but as a perfect model of the elegance we generally associate with the architecture of this people, it is perhaps unrivalled by anything in Egypt, and far surpasses the Alhambra or the other Western buildings of its age.

After this period there were not many important buildings erected in Cairo, or indeed in Egypt, and when a new age of splendour appears, the old art is found to have died out, and a renaissance far more injurious than that of the West, has grown up in the interval. In modern Europe the native architects wrought out the so-called restoration of art in their own pedantic fashion; but in the Levant the corresponding process took place under the auspices of a set of refugee Italian artists, who engrafted their would-be classical notions on the Moorish style, with a vulgarity of form and colour of which we have no conception. In the later buildings of Mehemet Ali and his contemporaries we find the richest and most

beautiful materials used, so as to make us wonder how men could so pervert every notion of beauty and propriety to the production of such discordant ugliness.



985.

Mosque of Kaitbey. (From Coste's 'Architecture Arabe')

From its size and the beauty of the materials, the mosque erected by the late Pasha in the citadel of Cairo ought to rival any of the more ancient buildings in the city; but it is already falling to pieces, and except for the fact that its main design is based on the principle of the

great mosques erected in imitation of Sta. Sophia at Constantinople, which gives a certain grandeur to its interior, it would be utterly uninteresting.¹

MECCA.

In a history of the Mahomedan religion a description of the mosque at Mecca would naturally take the first place ; but in a work devoted to architecture it is sufficient to mention it in connection with Egypt, to whose sultans it owes whatever architectural adornment it possesses. The Kaabah or holy shrine itself, has no architecture, and is famous only for its sanctity.

In the earlier centuries of the Hejra the area seems to have been surrounded by a cloister of no great magnificence, but after a great fire which occurred in 1399, the north and west sides were built in a more splendid manner by Barkook, Sultan of Egypt, whose mosque and tomb are illustrated, Woodcuts Nos. 983, 984. In 1500 El Ghoury, likewise an Egyptian sultan of Memlook race, rebuilt the Bab Ibrahim. The next repairs were due to the sultans of Constantinople. Selim I., in 1572, rebuilt one side, and in 1576 Murad effected a general repair of the whole, and left it pretty much as we now find it.

It need hardly be pointed out that in arrangement it necessarily differs from all other mosques. The precept of the Koran was, that all true believers when they prayed should turn to the Kaabah, and a mosque consequently became a mere indicator of the direction in which Mecca stood ; but in this instance, with the Kaabah in the centre, no mihrab or indication was possible. All that was required was a *temenos* to enclose the sacred object and exclude the outside world with its business from the hallowed precincts.

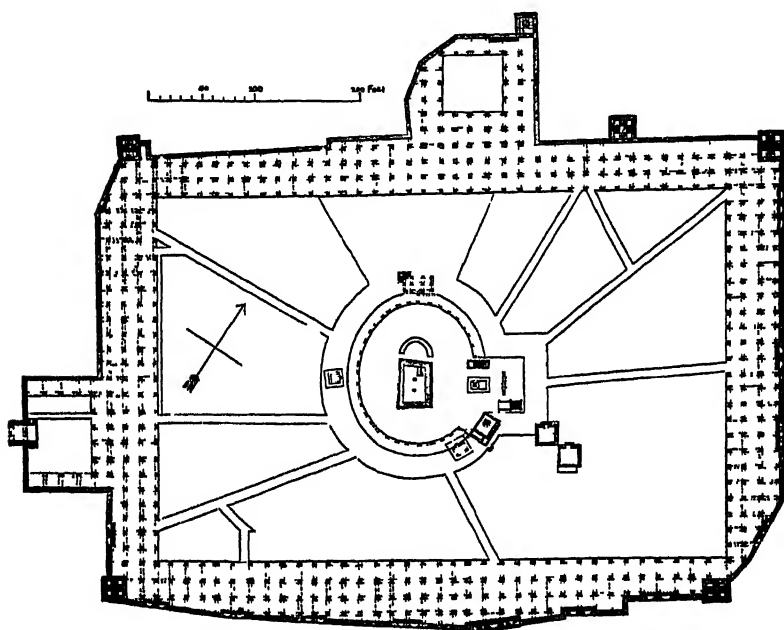
The principal object in the enclosure is of course the Kaabah, a small, low tower, nearly but not quite square in plan, the longer sides 39 and 40 ft. respectively ; the shorter 31 and 33 ft. ; its height is 36 ft. The entrance is near one corner, at a height of 6 ft. from the ground. It is wholly without architectural ornament, and the upper part is covered by a black cloth, which is annually renewed. Next in importance to this is the Zemzem, or holy spring, which is said to have gushed out on this spot to the succour of Ishmael and his mother when perishing of thirst. These two objects are joined by a railing surrounding the Kaabah, except at one point, where it joins the Zemzem. The railing probably marks the enclosure of the old Pagan temple before Mahomet's time.

These, with some other subordinate buildings, now stand in a court-

¹ A view of it will be found in vol. ii. 'History of the Modern Style of Architecture,' 1891, p. 314.

yard, forming a perfect rectangle of about 380 ft by 570 internally, surrounded by arcades on all sides. These vary considerably in depth, so as to accommodate themselves to the external outline of the building, which, as shown in the Woodcut (No. 968), is very irregular. It is entered on all sides by nineteen gateways, some of which are said to be of considerable magnificence, and it is adorned by seven minarets. These are placed very irregularly, and none of them are of particular beauty or size.

On the longer sides of the court there are thirty-six arches, on the



986

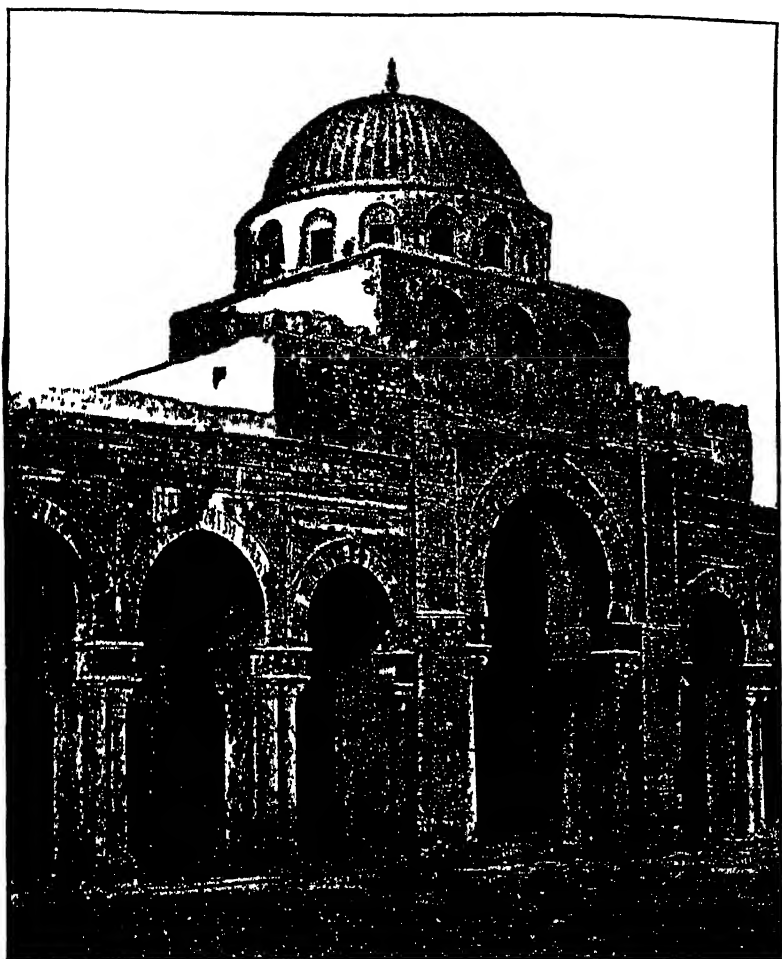
Great Mosque at Mecca (From a Plan by Alh Bey.¹)

shorter twenty-four, all slightly pointed. They are supported by columns of greyish marble, every fourth being a square pier, the others circular pillars.

Neither its ordonnance, nor, so far as we can understand, its details, render the temple an object of much architectural magnificence. Even in size it is surpassed by many, and is less than its great rival, the temple of Jerusalem, which was 600 ft. square. Still it is interesting, as it is in reality the one temple of the Moslem world; for though many mosques are now reputed sacred, and as such studiously guarded against profanation, this pretended sanctity is evidently a prejudice

¹ To get it within the page, the scale of the plan is reduced to 200 French, or 212 English ft. to 1 in.

between the styles of the East and the West. The recent annexation of Tunis by France, however, has enabled us at last to obtain plans and drawings of the great mosque at Kerouan, so that we can trace, according to Mr. Carpenter (*see* R.I.B.A. Transactions, 1882-83, from whence the particulars here given are borrowed) the parentage of the



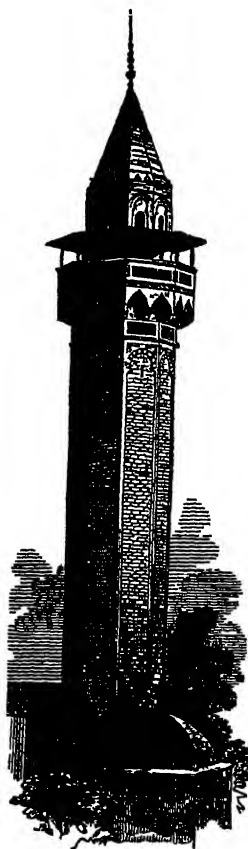
988.

Main Entrance in Court of Great Mosque of Kerouan.

Mosque of Cordoba and other work in Spain which seemed, when this work was first written, to be cut off from all connection with the East and to stand utterly alone.

The mosque of Kerouan was founded by the Emir Akhbah in 675 A.D., and was rebuilt and extended in the succeeding three centuries. The plan of the mosque (Woodcut 987) is somewhat irregular, being wider at the south-eastern end by about thirty feet.

It covers an area of a little over 100,000 square ft. of which about one-third is covered over and forms the prayer chamber. The great court measures 220×176 ft. with double-aisled corridors on the east and west side, other buildings partially enclosed on the north side, with a lofty tower, thirty feet square, in the centre and surmounted by a small dome. In this tower is a marble staircase, with Roman fragments of the time of Trajan and Aurelius Antoninus.



989. Minaret at Tunis
(From Girault de Frangey.)

The prayer-chamber is entered from the court by thirteen archways, all circular and horseshoe. The central entrance (Woodcut 988) to the principal aisle consists of a lofty horseshoe arch of two orders, with a square low tower and surmounted by a fluted dome. The prayer-chamber consists of a central aisle with eight aisles on each side, all running in the direction of the Mecca wall, with cross-arcading at various intervals. The aisles are separated one from the other by columns all taken from earlier buildings, carrying horseshoe arches, the columns in the central aisle being twenty-two feet high, and occasionally coupled together or in triplets; those of the aisles being fifteen feet high. The capitals are mainly taken from Roman buildings; some, however, are Byzantine, and are carved with birds and flowers. The arches are all tied together by wooden beams and iron rods. The mihrab is surmounted by a fluted dome on hexagonal base, containing richly coloured glass windows, and the mihrab niche is lined with marble and Byzantine mosaic and flanked by porphyry columns. The chief entrance is through a porch on the west side and is carried up as a tower, and there are four other minor entrances.

Tunis possesses some noble edifices, not so old as this, but still of a good age, but except the minaret represented in the annexed woodcut (No. 989), none of them have yet been drawn in such a manner as to enable us to judge either what they are or what rank they are entitled to as works of art. This minaret is one of the finest specimens of a particular class. It possesses none of the grace or elaborate beauty of detail of those at Cairo; but the beautiful proportion of the shaft, and the appropriate half-military style of its ornaments, render it singularly pleasing. The upper part also is well proportioned, though altered to

some extent in modern times. Unfortunately neither its age nor height is correctly known. It is probably three or four centuries old and with its contemporary the Hassanee mosque at Cairo, proves that the Saracenic architects were capable of expressing simple grandeur as well as elaborate beauty when it suited them to do so

Algeria possesses no buildings of any importance belonging to any good age of Moorish art. Those of Constantine are the only ones which have yet been illustrated in an intelligible manner, and they scarcely deserve mention after the great buildings in Egypt and the farther East. I cannot help suspecting that some remains of a better age may still be brought to light, but the French archæologists seem to be wholly taken up with the vestiges of the Romans, and not to have turned their attention seriously to the more modern style, which it is to be hoped they soon will do. In an artistic point of view, at least, it is far more important than the few fragments of Roman buildings still left in that remote province.

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CHAPTER III.

SPAIN.

CONTENTS

Introductory remarks—Mosque at Cordoba—Palace at Zahra—Churches of Sta Maria and Cristo de la Luz at Toledo—Giralda at Seville—Palace of the Alcazar—The Alhambra—Sicily

CHRONOLOGY

	DATES.		DATES.
Moors invade Spain	A D 711	Alcazar and Giralda at Seville (about)	A D 1200
Abd-el-Rahman commences Mosque at Cordoba	788	Mohammed ben Alhammar commences Alhambra	1248
El-Hakeem II extends the Mosque southwards and rebuilds sanctuary	961	Abou abd-Allah, builder of Court of Lions, begins to reign	1325
El Mansour enlarges mosque eastwards	980	Christian conquest of Granada.	1492

OWING probably to its position, the forms which the Saracenic style assumed in Spain are somewhat different from those which we find elsewhere. As a style it is inferior to many other forms of Saracenic art. It has not the purity of form and elegance of detail attained in Egypt, nor the perfection in colouring which characterises the style of Persia, while it is certainly inferior both in elegance and richness to that of India. Still it is to us perhaps the most interesting of the whole, not only because of its proximity to our own shores, and our consequent greater familiarity with it, but because history, poetry, and painting have all combined to heighten its merits and fix its forms on our minds. Few are unacquainted with the brilliant daring of the armies of adventurers who in the 8th century subjugated Spain and nearly conquered Europe, and fewer still have listened without emotion to the sad tale of their expulsion eight centuries afterwards. Much of the poetry and romance of the Middle Ages owes its existence to the struggles between the Christian and the Paynim knights; and in modern times poets, painters, and architects have all lingered and expatiated on the beauties of the Alhambra, or dwelt in delight on the mysterious magnificence of the mosque at Cordoba. Indeed no greater compliment could be paid to this style than that conveyed by the fact that, till within the last few years, not one work of any importance has been devoted to the Christian antiquities of Spain, while even England has produced two such splendid illustrations of the

Alhambra as those of Murphy and Owen Jones—works far more magnificent than any devoted to our own national art. In France, too, Girault de Prangey, Le Normand, Chapuy, and others, have devoted themselves to the task, and even in Spain the ‘*Antigüedades Arabes en España*’ is the best production of the class. We are thus really familiar with what these strangers did; while the cathedrals of Seville, Toledo, Burgos, and Leon, are only partially measured or illustrated; and travellers hurrying to the Alhambra scarce condescend to alight from the diligence to cast a passing glance at their beauties¹.

This is indeed hardly fair; still it must be confessed it is impossible to come into contact with the brilliant productions of the fervid imagination of a Southern people without being captivated with their beauty; and there is a fascination in their exuberance of ornament and brilliancy of colour which it is impossible to resist when these are used with the daring which characterises their employment here. It is also true that these Moorish architects avoid the vulgarity which would inevitably accompany such exuberance in the hands of Northern artists—a defect which the more delicately organised Asiatic invariably escaped.

CORDOBA.

As far as the history of architecture is concerned, by far the most interesting building in Spain is the mosque of Cordoba; it was the first important building commenced by the Moors, and was enlarged and ornamented by successive rulers, so that it contains specimens of all the styles current in Spain from the earliest times till the building of the Alhambra, which was in the latest age of Moorish art.

This celebrated mosque was commenced by Caliph Abd-el-Rahman in the year 786, and completed by his son El-Hakeem, who died 796. The part built by them was the eleven western aisles and twenty-one bays deep, which then formed an edifice completed in itself, not unlike the Aksah at Jerusalem (except in the number of aisles), which the Caliph is said to have been anxious to surpass. In 961 A.D. El Hakeem II. enlarged the mosque by forming arches through the south

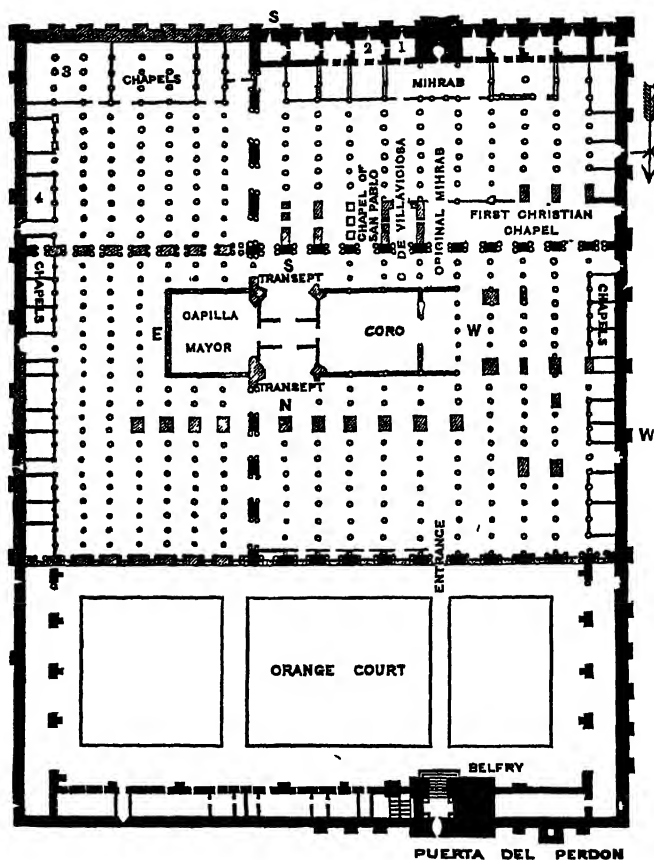
¹ When the great national work, entitled ‘*Monumentos Arquitectonicos d’España*,’ is complete, this reproach will be removed, but that certainly will not be the case for ten or twelve years to come, if it ever does attain completion. The scale is too large, and the total want of principle on which it is carried out renders it useless till it is further advanced. Twenty-three numbers are published, but not one important

building is complete, and, excepting a plan of Toledo, not one of the larger buildings is even attempted—*Cosas d’España*.

The above note was written twenty-five years ago and is true now, except that the twenty-three must be now eighty-nine, where it stopped nine years ago.

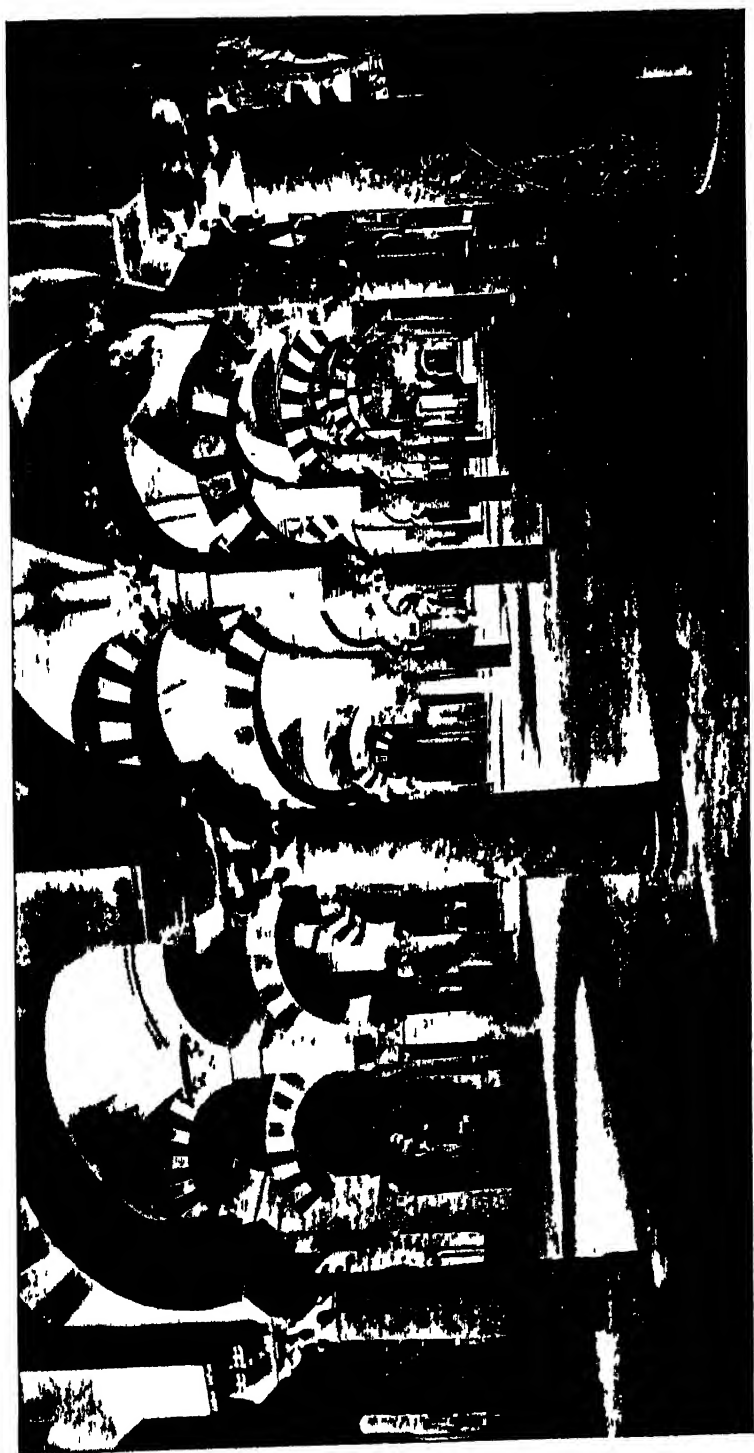
wall and adding twelve more bays further south. He rebuilt the mihrab and added priest's chambers the whole width of his building. The court on the north side was rebuilt about 937 A. D.

The eight eastern aisles were added by El Mansour (976-1001), who increased the size of the court to the full width, thus completing the mosque to a parallelogram of 573 ft by 422, it covers, therefore, 242,000 square feet, or, not counting the open court,



990 Plan of Mosque of Cordoba. (R. H. Carpenter, R. I. B. A., Transcriber)

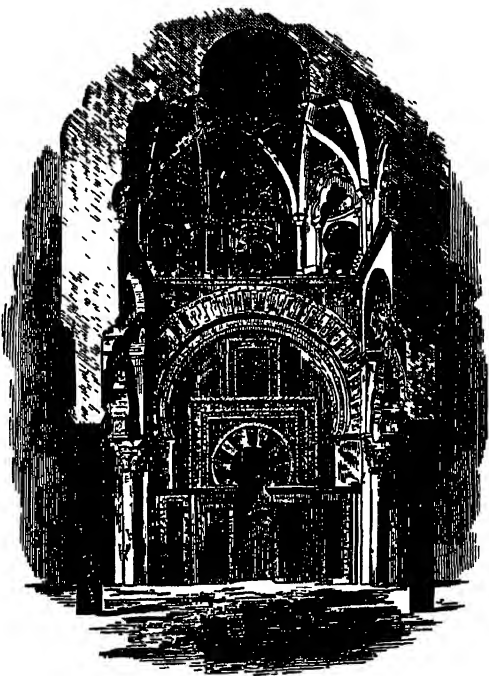
232,000 square feet, being a larger superficies than that of any Christian church, including St. Peter's at Rome. It is, however, sadly deficient in height, being only about 30 ft. high to the roofs, and also wants subordination of parts, all the aisles being nearly of the same width, about 22 ft., except the central one of the original eleven, which is 5 ft. wider; the 33 transverse aisles are all similar in breadth; so that altogether it is as deficient in design as the "hall of a thousand



INTERIOR OF THE MOSQUE OF CORDOVA

columns" of a Hindu temple, and produces pretty nearly the same effect.

The mosque of Abd el-Rahman I. was built with columns of many-coloured marbles, taken from ancient edifices, with beautiful capitals of Roman and Byzantine work. These columns being small and low, they were obliged to employ the expedient of placing arch over arch to eke out their height—to insert, in short, for the nonce that strange style which gives so peculiar a character to the building. In the additions by El Hakeem II. the same style was adhered to, but the columns were quarried at Merida for the purpose, and are all uniform in colour and size. The capitals are blocked out only, and not carved, except some in the mihrab. A mansoura or sanctuary was enclosed at the north end, including two bays in depth, and extending across the eleven bays of El Hakeem II.'s addition. Great richness was given to this portion of the work, and the lower arches are formed of interlaced cusped work of great elaboration and richness, which seems to have suggested the plaster decoration of the screen work above the arches in the courts of the Alhambra. The decorations of the sanctuary and the mihrab in marble and mosaic are of



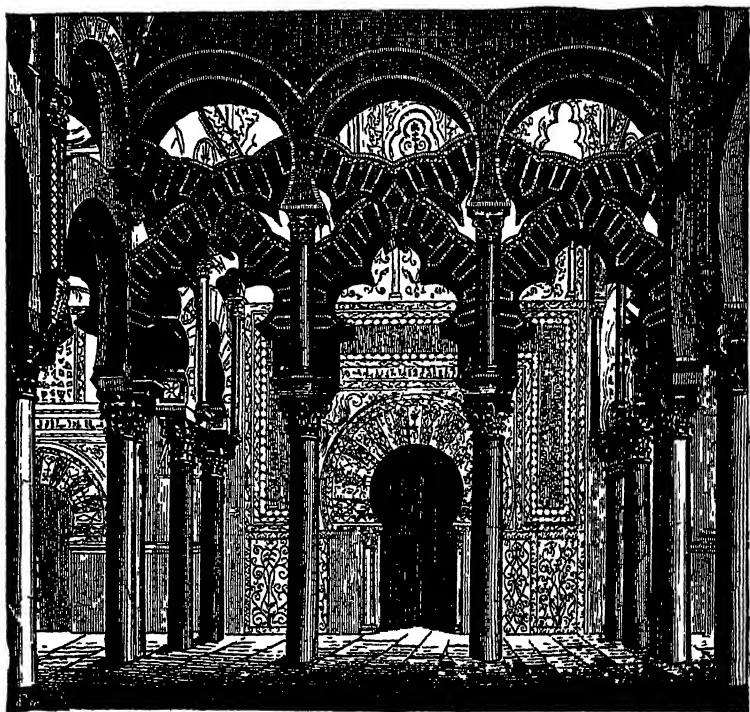
391. Interior of Sanctuary at Cordoba. (From a Drawing by Giliart de Prangey.)

Byzantine workmanship, being executed by artists sent by the Emperor Leo from Constantinople at the request of the Caliph, El Hakeem II. The roof of the whole mosque was originally in wood, carved, painted, and gilded. This is now hidden by the brick and plaster vault built underneath partly in 1713-23 and in this century; this vault also hides the frieze which decorated the upper part of the walls.

In the eastern extension of Al Mansour there is a great falling off in the execution of the work, which is irregularly set out, and in which some of the arches are pointed.

The alterations effected by the Christians are found in the church

erected on the southern side of the first south wall, taking three bays of El Hakeem II's mosque, and in the great coro built in 1547, in the centre of the whole building. According to Mr. Carpenter, the work is a combination of late Gothic and Plateresque work, and great ingenuity has been shown in the treatment of the arches of the transept where the Moorish aisles run into them. "The effect of the whole is undoubtedly very grand, and we cannot but respect the skill of the architect, even though its erection involved the sweeping away of a large portion of



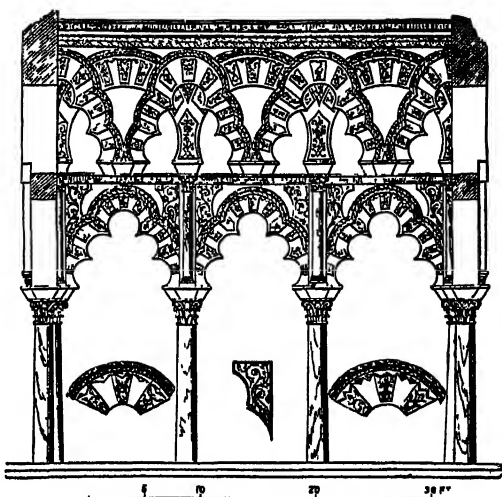
Moorish work." Mr. Carpenter refers also to "the very clever and artistic treatment of the great internal piers of the flying buttresses, which, with the walls of the Capilla Mayor facing the aisles are panelled and filled with sculptures of late-painted work executed with great delicacy and beauty.

Before leaving this mosque it may be as well to remark that nowhere in any of these styles does the pointed arch appear, or only so timidly as to be quite the exception, not the rule. At an age when its employment was universal in the East, it is singular to observe how completely the Saracenic architects followed the traditions of the country in which they found themselves. At Cordoba they never

threw off the influence of the Roman arches, though farther north the pointed is by no means uncommon in their buildings.

Contemporary with the rebuilding of the sanctuary of the mosque was the erection of the great palace in the city of Zahra near Cordoba, which, if we may trust the accounts that have been handed down to us, was by far the most wonderful work of the Moors in Spain. This indeed might be expected, for, as has been before remarked, the palaces were the principal buildings of this people, and this being of the very best age, might naturally be expected to excel any other edifice erected by them.

Hardly a stone now remains to mark even the spot where it stood. Its destruction commenced shortly after its completion, in the troubles of the 11th century, even before the city fell into the hands of the Christians, and we therefore depend wholly on the Arabian historians from whom Conde and Murphy compiled their accounts; but as they, with Maccary, describe the mosque in the same page with the palace, and do not exaggerate, nor say one word too much in praise of the former, we cannot refuse credence to their description of the latter.



993 Screen of the Chapel of Villa Viciosa, Mosque of Cordoba

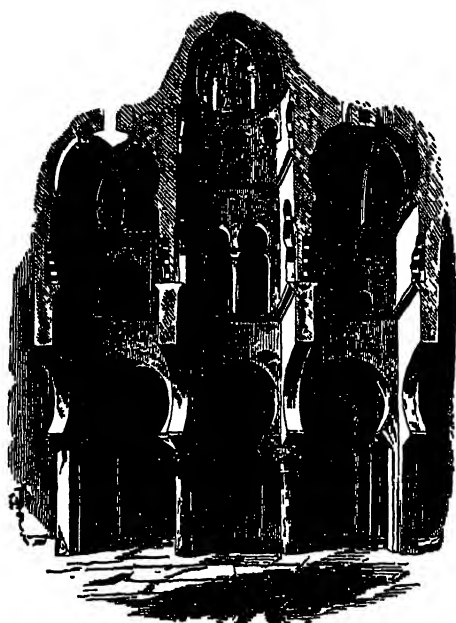
According to these authors the enclosing wall of the palace was 4000 ft. in length E. and W., and 2200 ft. N. and S. The greater part of this space was occupied by gardens, but these, with their marble fountains, kiosks, and ornaments of various kinds, must have surpassed in beauty, and perhaps even in cost, the more strictly architectural parts of the building. 4300 columns of the most precious marbles supported the roofs of the halls; 1013 of these were brought from Africa, 19 from Rome, and 140 were presented by the Emperor of Constantinople to Abd-el-Rahman, the princely founder of this sumptuous edifice. All the halls were paved with marbles in a thousand varied patterns. The walls too were of the same precious material, and ornamented with friezes of the most brilliant colours. The roofs, constructed of cedar, were ornamented with gilding on an azure ground, with damasked work and interlacing designs. . All, in short, that the unbounded wealth of the caliphs of that period could

command was lavished on this favourite retreat, and all that the art of Constantinople and Bagdad could contribute to aid the taste and executive skill of the Spanish Arabs was enlisted to make it the most perfect work of its age. Did this palace of Zahra now remain to us, we could afford to despise the Alhambra and all the works of that declining age of Moorish art.

Among other buildings contained within the great enclosure of the palace was a mosque. This had five aisles, the central one wider than the others. The total length from the Kibleh, or niche pointing to Mecca, to the opposite wall was 97 cubits (146 ft.), the breadth

from E. to W. 49 cubits (74 ft.). It was finished in the year 941, and seems to have been one of the last works of the palace, having been commenced in 936. From this description it is clear that it was virtually a five-aisled church, and, as no mention is made of the court, we may fancy that, like the seven-aisled Aksah at Jerusalem, it never had that accompaniment, but was in reality only a basilica extended laterally, but on a small scale.

The church of Sta Maria la Bianca (Woodcuts Nos. 957, 958), described in a previous chapter, though built for another people, and for a different purpose,



994 Church of San Cristo de la Luz, Toledo (From a Drawing by Girault de Prangey.)

is still so essentially in the Saracenic style, that it may fairly be taken as illustrating the progress which has been made in perfecting it up to its date in the 12th century.

Another very interesting specimen of a Moorish mosque in Spain is that at Toledo, now known as the church of Cristo de la Luz (Woodcut No. 994). It is a small square building with four stout short pillars on the floors, dividing it into nine equal compartments, the central one of which is carried up higher than the others, and terminated by a sort of dome, if dome it can be called; for the Spanish architects, working almost wholly from Roman models, never adopted the Byzantine dome to any extent, except perhaps as the roofs of baths. In their mosques and palaces it is only used as an ornamental

detail, and never constructed either of stone or brickwork, but merely a carpentry framing covered with stucco or mastic. The Spanish style shows in this a most essential difference from the Eastern, where the domes are so splendid and durably constructed, and where they constitute the actual roofs of the buildings.

Indeed vaulting does not seem under any circumstance to have been an art to which the Spanish Arabs ever paid any attention. Almost all their roofs are of wood carved and painted, or of stucco, not used to imitate stone, but as a legitimate mode of ceiling, which it certainly is, and for fanciful and gorgeous decorations perhaps preferable to more durable but less manageable materials.

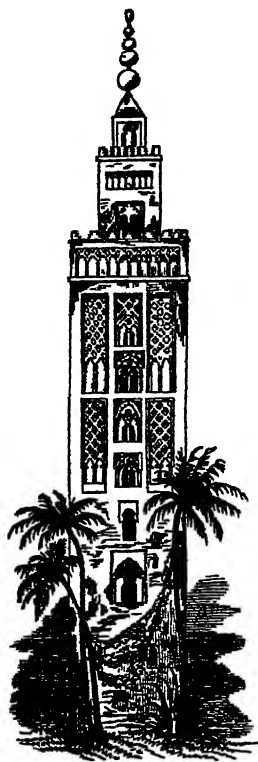
The art resulting from such materials is, it is true, more ephemeral and must take a lower grade than that built up of materials that should last for ever; but such was not the aim of the gay and brilliant Moors, and we must judge them by their own standard, and by their success in attaining the object they aimed at.

In San Cristo the walls are sufficiently solid and plain, and on the whole the forms and decorations are judiciously and skilfully applied to attain the requisite height without raising the columns or giving any appearance of forced contrivances for that purpose. In this respect it shows a considerable advance on the design of the older part of the mosque at Cordoba, than which it is probably at least a century more modern; but it does not show that completeness which the art attained in the 10th century, when the sanctuary at Cordoba was erected.

These four buildings mark four very distinct stages in the history of the art—the early mosque at Cordoba being the first, the San Cristo de la Luz the second; the third and most perfect is well represented by all the building at the southern end of the mosque at Cordoba; and the fourth by Sta. Maria la Blanca, where all trace of Roman and Byzantine art has wholly disappeared. A fifth stage is represented by another synagogue at Toledo called El Transitu; but this is so essentially merely a gorgeously ornamented room that it hardly serves to be classed among monumental buildings; besides which this stage is so well illustrated in the palaces of Seville and Granada that it is not necessary to dwell on minor examples. Had the great mosques of Seville, Toledo, or Granada been spared to us, it would perhaps have been easier and better to restrict our illustrations to sacred edifices alone; but they—at least certainly the two first named—have wholly disappeared to make way for the splendid cathedrals which stand where they once stood, and which have obliterated nearly every trace of their previous existence. In the northern cities the national pride and stern bigotry of the Spaniards have long ago effaced all traces of this religion.

THE GIRALDA AT SEVILLE.

None of the mosques we have been describing possess minarets, nor is there anything in Spain to replace the aspiring forms of the East except the Giralda at Seville. This is a more massive tower than is, I believe, to be found anywhere else as the work of a Moslem architect. At the base it is a square of about 45 ft., and rises without



995. Giralda, Seville (From a Drawing by Girault de Prangey.)

diminution to the height of 185 ft. from the ground ; to this a belfry was added in 1568 by Ferdinand Riaz, making it 90 ft. higher ; and unfortunately we have nothing to enable us to restore with certainty the Saracenic termination which must have been displaced to make room for this addition. In the annexed woodcut (No. 995) it is represented as restored by Girault de Prangey, and from a comparison with the towers of Fez and Morocco, erected by the same king, it is more than probable it was thus terminated originally. It is difficult nevertheless to reconcile oneself to the idea that the upper part was not something more beautiful and more in accordance with the base. In the East the Mahomedan architects would certainly have done something better ; but here, from the want of familiarity with tower-architecture, and from the want of any circular or domical forms for the termination of towers or sky-lines, this inartistic form may have been adopted. The lower part is certainly much more beautiful ; the walls are relieved with panels to just such an extent as is required for ornament without interfering with the construction or apparent solidity

of the tower, while the windows are graceful and appropriate, and in such number as seems required. In this respect it contrasts pleasingly with the contemporary campanile at Venice, which, though very nearly of the same dimensions, is lean and bald compared with this tower at Seville. So indeed are most of the Italian towers of the same age. All these towers seem to have been erected for very analogous purposes, for the Giralda can never have been meant as the minaret of a mosque, to be used for the call to prayer ; nor can we admit the destination sometimes ascribed to it by those who surmise that it may have been merely meant for an observatory.



ALHAMBRA
THE COURT OF LIONS

Most probably it was a pillar of victory, or a tower symbolical of dominion and power, like many others we have had occasion to allude to in the previous pages of this work. Indeed the tradition is that it was built by King Yousouf to celebrate his famous victory of Alarcos, gained in the year 1159, in which year its construction was commenced. As such it is superior to most of those erected in Europe in the Middle Ages, but far inferior, except in size, to the Kootub Minar, and many others still found in various parts of Asia.

THE ALCAZAR AT SEVILLE.

The Alcazar¹ at Seville was an older palace, and perhaps also at one time a more magnificent one than the Alhambra itself. Hence it would be a most interesting example of the Mahomedan style, were it not that it has been much dilapidated in subsequent ages, and its character destroyed by alterations and so-called improvements after it fell into the hands of the Christians. It is more than probable that the best parts of it belong to the same age as the Giralda—the end of the 12th and beginning of the 13th century—and that it continued to receive additions till the city was taken by the Christians in 1248. A careful examination of the building by some one intimate with all the peculiarities of the style might distinguish the ancient parts from the later Christian additions, especially those perpetrated by Don Pedro the Cruel (1353–1364), who, in an inscription on the walls, claims the merit of having rebuilt it. The history of this palace is not consequently of much importance, since it is not so much older than the Alhambra as to mark another style, nor so complete as to enable us to judge of the effect of the art as perfectly as we can in that celebrated palace.

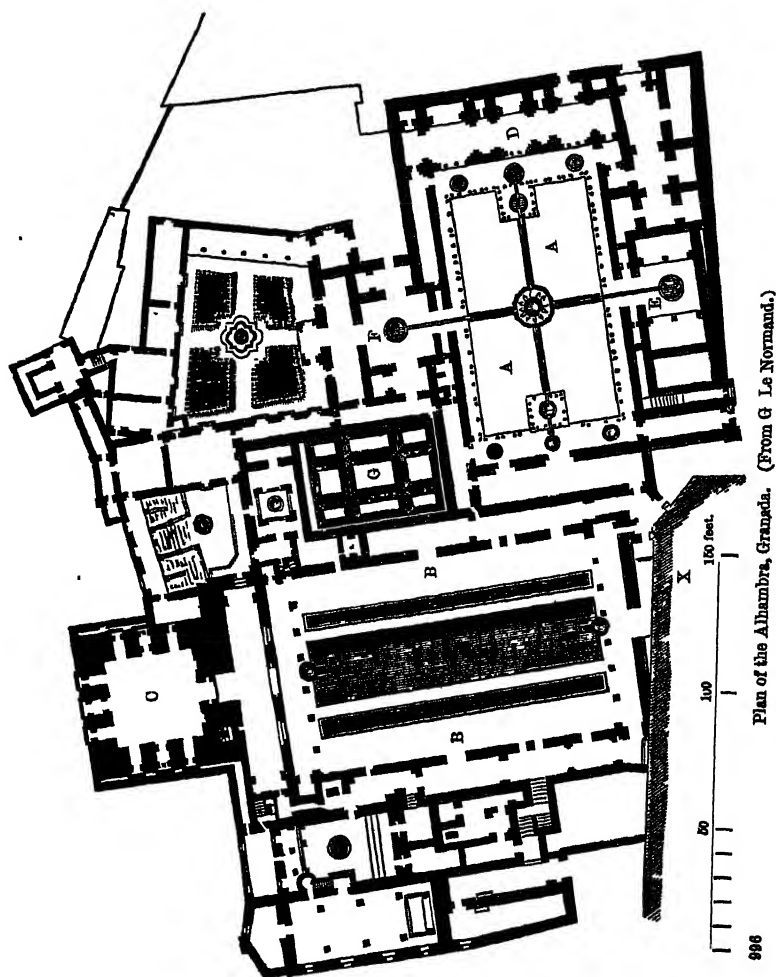
THE ALHAMBRA.

It was after his expulsion from Seville (1248) that Mohammed ben Alhamar commenced the present citadel of the Alhambra, at which both he and his successors worked continually till the end of the 13th century. It does not, however, appear that any of the more important buildings now found there were erected by these monarchs. From the accession of Abou-el-Walid (1309) to the death of Yousouf (1354) the works of the present palace seem to have been carried on uninterruptedly, and it is to this half-century that we must refer all the essential parts of the palace now found in the citadel.

As will be seen from the annexed plan, it consists principally of two oblong courts; the richest and most beautiful, that of the Lions'

¹ Alcazar = el-Kasr, "the Castle"

(A A), running east and west, was built by Abou Abdallah (1325-1333). The other, the Court of the Alberca (B B), at right angles to the former, is plainer and probably earlier. Restorers generally add a third court, corresponding with that of the Lions, which they say was removed to allow of the erection of the palace of Charles V. (x x),



which now protrudes its formal mass most unpleasingly among the light and airy constructions of the Moors. My own impression is that if anything did stand here, it was the Mosque, which we miss, although we know that it existed, and tradition points to this side as its locality, though it certainly was not the apartment at that angle which now goes by that name. It must, like all Spanish mosques, have faced the south, and was most probably destroyed by the first

Christian conquerors of Granada. Indeed it is not unlikely that the Christian palace above mentioned, which stands strangely unsymmetrically with the other buildings, follows the lines of the old mosque. This could be in great measure determined if we could rely upon the bearings of the different courts and buildings as given in the plans hitherto published.

The principal entrance to the Alhambra seems always to have been at the southern end of the Court of the Alberca. This part does seem to have been altered or pulled down to make way for the palace of Charles V. The court was originally called, apparently from the pool of water which always occupied its centre, *El Birkeh*. It is 138 ft. long by 74 wide, the longer sides being singularly, and in such a place ungracefully, plain. The end to the south terminates with a double arcade of very beautiful design, and that to the north with a similar one, but only one storey in height, crowned by the tower enclosing the great Hall of the Ambassadors (c), to which the Court is practically an anteroom. This is an apartment 35 ft. square, and about 60 in height, roofed by a polygonal dome of great beauty of design, and covered, like the walls, with arabesque patterns of the greatest beauty. One of its most charming peculiarities, however, is the deeply-recessed windows, looking down on the city, and beyond that commanding a view of the delicious Vega, and the mountains that bound it. It is one of the most beautiful scenes in the world, of which the architect availed himself with the eye of a true artist, who knew how to combine nature and art into a perfect whole.

The other court, called that of the Lions (A A), from the beautiful fountain supported by twelve conventional-looking animals so called, is smaller (115 ft. by 66 from wall to wall), but far more beautiful and elaborate than the other, indeed, with the apartments that surround it, this is the gem of Arabian art in Spain—its most beautiful and most perfect example.¹ It has, however, two defects which take it entirely out of the range of monumental art: the first is its size, which is barely that of a modern parish church and smaller than many ball-rooms; the second its materials, which are only wood covered with stucco. In this respect the Alhambra forms a perfect contrast to such a building as the Hall at Karnac, or any of the greater monumental edifices of the ancient world, and, judged by the same standard, would be found lamentably deficient. But, in fact, no comparison is applicable between objects so totally different. Each is a true representative of the feeling and character of the people by whom

¹ A perfect copy of this court was reproduced by Mr. Owen Jones at the Crystal Palace in 1854. Except being slightly curtailed in plan, every detail and every dimension is identical with the original.

it was raised. The Saracenic plaster hall would be totally out of place and contemptible beside the great temple-palace of Thebes, while the granite works of Egypt would be considered monuments of ill-directed labour if placed in the palaces of the gay and luxurious Arab fatalist, to whom the present was everything, and the enjoyment if the passing hour all in all.

The shafts of the pillars that surround the Court of Lions are far from being graceful in themselves, being more like the cast-iron props used by modern engineers than anything else. Their capitals, however, are very gracefully moulded, and of a form admirably adapted for the support of the superstructure they were destined to bear, and the pillars themselves are so gracefully grouped, alternately single and coupled, and their alignment is so completely broken by the projecting portico at each end, that they cease to be prominent objects in themselves, and become mere accessory details. The arcades which they support are moulded in stucco with a richness and beauty of ornament that is unrivalled. There is in this no offence to good taste; indeed work executed in plaster *ought* to be richly decorated, otherwise it is an unsuccessful attempt to imitate the simplicity and power that belongs to more durable and more solid materials. It should therefore always be covered with ornament, and was never elaborated with more taste and consistence than here.

At the upper end of this court is an oblong hall, called that of Judgment (D), and on either side two smaller rooms, that "of the Abencerrages" (E) on the south, and that called "of the Two Sisters" (F) opposite, the latter being the most varied and elegant apartment of the whole palace. The walls of all these are ornamented with geometric and flowing patterns of very great beauty and richness, and applied with unexceptionable taste for such a decoration; but it is in the roofs and larger arcades that the fatal facility of plaster becomes most apparent. Instead of the simple curves of the dome, the roofs are made up of honeycombed or stalactite patterns, which look more like natural rockwork than the forms of an art, which should be always more or less formal and comprehensible at a glance, at least in its greater lines and divisions. There is perhaps no instance where a Saracenic architect has so nearly approached the limits of good taste as in these parts, and it requires all the countervailing elements of situation, and comparison with other objects, to redeem them from the charge of having exceeded those limits.

Behind the Hall of the Two Sisters, and on a lower level, are situated the baths (G)—beautiful in some respects, and appropriately adorned, but scarcely worthy of such a palace.

Besides the edifices mentioned above, there is scarcely a town in Spain, once occupied by the Moors, that does not retain some traces



SEVILLE
THE GIRALDA TOWER AND THE COURT OF ORANGES

of their art. These traces, however, are generally found in the remains of baths, which from their nature were more solidly built than other edifices, and were generally vaulted with bricks—frequently with octagonal domes supported on twelve pillars, as those in the East. These in consequence have survived, while the frailer palaces of the same builders have yielded to the influence of time, and their mosques have disappeared before the ruthless bigotry of their successors. None of the baths, however, seem to be of sufficient importance to require notice.

In Spain we entirely miss the tombs which form so remarkable a feature of Saracenic architecture wherever any Turanian blood flows in the veins of the people. The Moors of Spain seem to have been of purely Semitic race, either importations from Arabia or the descendants of the old Phœnician settlers on the southern coast; and among them, of course, it would be absurd to look for any indications of sepulchral magnificence.

If the Moors of Spain had practised tomb-building to as great an extent as some of their brethren further east, this circumstance would, in all probability, have given a more monumental character to their style of architecture. True domes would certainly have been introduced and applied, not only to their mosques but to their palaces, and with them all those beautiful arrangements which we find as the invariable accompaniments of domes in the East.

Be this as it may, it is on the whole perhaps fortunate that we possess in Spain a form of Saracenic art from which all feeling of solemnity, and all aspirations for the future, are wholly banished. No style of architecture is so essentially impressed with the feeling that the enjoyment of the hour is all that should be cared for. It is consequently the gayest, but it is also the most ephemeral, of all the styles of architecture with which we are acquainted.¹

¹ Nothing need be said here of La Cuba and La Ziza, and other buildings in Sicily, which, though usually ascribed to the Saracens, are now ascertained to have been built by the Normans after their conquest of the island in the 11th century. They are Saracenic in style, it is true, and were probably erected by Moslem artists, but so were many churches

and chapels in Spain, as mentioned above; and I am not aware of any building now extant there which can be safely ascribed to the time when the island was held by the Moslems, or was then erected by them for their own purposes. Till that is ascertained, Sicily of course does not come within the part of our subject which we are now considering.

CHAPTER IV.

TURKEY.

CONTENTS.

Mosques of Mahomet II.—Suleimane and Ahmedje Mosques—Mosques of Sultanas Validé, and of Osman III—Civil and Domestic Architecture, Fountains, &c.

CHRONOLOGY.

	DATES.		DATES.
Conquest of Constantinople by Mahomet II	A.D. 1443	Mahomet III.	A.D. 1595
Bajazet II.	1481	Ahmed I.	1603
Selim I.	1512	Amurath IV.	1623
Suleiman II, the Magnificent	1520	Mahomet IV.	1649
Selim II.	1566	Suleiman III.	1687
Amurath III.	1574	Ahmed III.	1703
		Mahmood I.	1739

THE latter half of the 15th century witnessed some strange vicissitudes in the fate of the Mahomedan faith in Europe. In 1492 Granada was conquered, and the Moors expelled from the country which they had so long adorned by their arts, and rendered illustrious by their cultivation of the sciences. Of all the races who, at various times, have adopted the faith of Islam, the Spanish Moors seem to have been among the most enlightened and industrious, and the most capable of retaining permanently the civilisation they had acquired. They have made way for a people less progressive and more bigoted than any other population in Europe.

Before, however, this misfortune happened in the West, the fairest city of the Christian world, and its most fertile provinces, had fallen a prey to the most barbarous horde of all those who had adopted the Mahomedan religion. For two centuries the Turks had gradually been progressing westward from their original seats in Central Asia, and at last, in 1453, Constantinople itself fell into their power, and for more than a century after this, the fate of Europe trembled in the balance. The failure of the siege of Vienna (1683) turned the tide. Since that time the Christians have slowly and surely been recovering their lost ground; but the Crescent still surmounts the dome of Sta. Sophia.

Had the Turks obtained possession of Constantinople at an earlier date, it is possible that their architecture might have taken a different form from that in which we now find it. But before that event

the foundation of St. Peter's at Rome had already been laid. The old principles of art were already losing their hold on the architects of Europe, a revolution was taking place, and though this would hardly be much felt so far east as the Bosphorus, or materially influence strangers like the Turks, still it must have had some influence, and modified their style to some extent. Be this as it may, we are struck at Constantinople with the same phenomenon, which meets us everywhere in the Mahomedan world. Wherever the various nationalities settled who had embraced that faith, they at once adopted the architectural forms of their new country, and set to work to mould and modify them, so as to bring them more into conformity with their special requirements. Nowhere do they seem to have brought their style with them, or thought of forcing that on their new subjects. In this they were wise; and it is what probably all nations would do who had any true knowledge of art, or any true feeling for its purposes. In nine cases out of ten the original people of a country find out the arrangements most suited to their climate, and the forms of construction best adapted to the materials which are available, and to attempt to substitute for these, forms suited to other climates and another class of materials, is what only an Aryan would think of doing. The Turks, though barbarous, belonged to one of the great building races of the world; and so soon as they entered Constantinople, set to work vigorously to vindicate the characteristics of the family.

Besides appropriating seven or eight of the principal churches of the city—with Sta. Sophia at the head of the list—to the new worship, Mahomet II. founded six or seven new mosques, some of them of great magnificence. The chief of these is that which still bears his name, and crowns the highest of the seven hills on which the city stands. To make way for it, he pulled down the Church of the Apostles, which had been the burying-place of the Christian emperors apparently since the time of Constantine, and was consequently an edifice of considerable magnificence. It had, however, been plundered by the Latin barbarians who sacked the city some time before the Moslems, and it was also so crippled by earthquakes as to be in a dangerous state. In order to effect his purpose, Mahomet employed Christodulos, a Christian resident in Constantinople, to erect on the spot a mosque, which he intended should surpass all others in his empire. How far he was successful we have now little means of judging. An earthquake in 1763 so completely ruined this mosque that the repairs amounted almost to a rebuilding; and as these were carried out with the quasi-Italian details of the latter half of the 18th century, its present appearance probably conveys very little idea either of the form or of the magnificence of the original building. Enough of its form, however, still remains to tell us that, like all Turkish mosques, it

was a copy of *Sta. Sophia*. There is, indeed, nothing in the style we are now speaking of so remarkable as the admiration which that great creation of the Christians excited in the minds of its Moslem possessors. There are in or about Constantinople at least 100 mosques erected in the four centuries during which the Turks have possessed that city. Not one of these is a pillared court, like those of Egypt or Syria, nor an arcaded square, like those of Persia or India—none are even extended basilicas, like those of Barbary or Spain. All are copies, more or less modified, of *Sta. Sophia*, and many of the modifications are no doubt improvements, but none are erected with the same dimensions, none possess the same wonderful richness of decoration, or approach the poetry of design, of their prototype. In all that constitutes greatness in architectural art, the Christian Church still stands unrivalled. No one who has stood beneath the dome of *Sta. Sophia* will hesitate to admit that the Turks were perfectly justified in their admiration of Justinian's great creation; but the curious thing is, that no Christian ever appreciated its beauties. When, after the troubles of the 7th and 8th centuries, the Greeks again took to building churches, it was such as *Sta. Irene*, or the *Theotokos*, churches like those at *Pitzounda* or *Ani*, or those of Greece or Mount Athos. Not one single direct copy of *Sta. Sophia* by Christian hands exists, so far as is known, in the whole world. But the Turk saw and seized its beauties at a glance; and, by constancy to his first affection, saved his architecture from the utter feebleness which has characterized that of Western Europe during the four centuries in which he has been encamped on this side of the Bosphorus.

Among the other mosques built by Mahomet II., the most sacred is that of *Eyub*, the standard-bearer of the Prophet, whose body is said to have been found on the site of the mosque. Plans and drawings of this mosque might easily have been obtained while our armies occupied Constantinople during the Crimean war, but the opportunity was neglected, and all we have to depend upon is an eye-sketch by *Ali Bey*.¹ As the mosque in which each Sultan on his accession is girt with the sacred sword, and as the most holy in the empire, it would be interesting to know more about it, but we must wait.

The mosque of *Bayazid*, 1497–1505, is of the usual type, but not characterized by any extraordinary magnificence. In the mosque of *Selim*, 1520–26, the dome and its pendentives are carried by eight octagonal piers, reverting therefore to the principle of *St. Sergius* as regards supports; these piers, however, stand free within the walls, so that there is apparently greater space provided, the dome has a diameter of 108 ft., being the largest built by the Turks, that of *Suleimanie* mosque being 93 ft. in diameter, and of *Sultan Ahmed* 63 ft.

¹ Plate LXXXI.

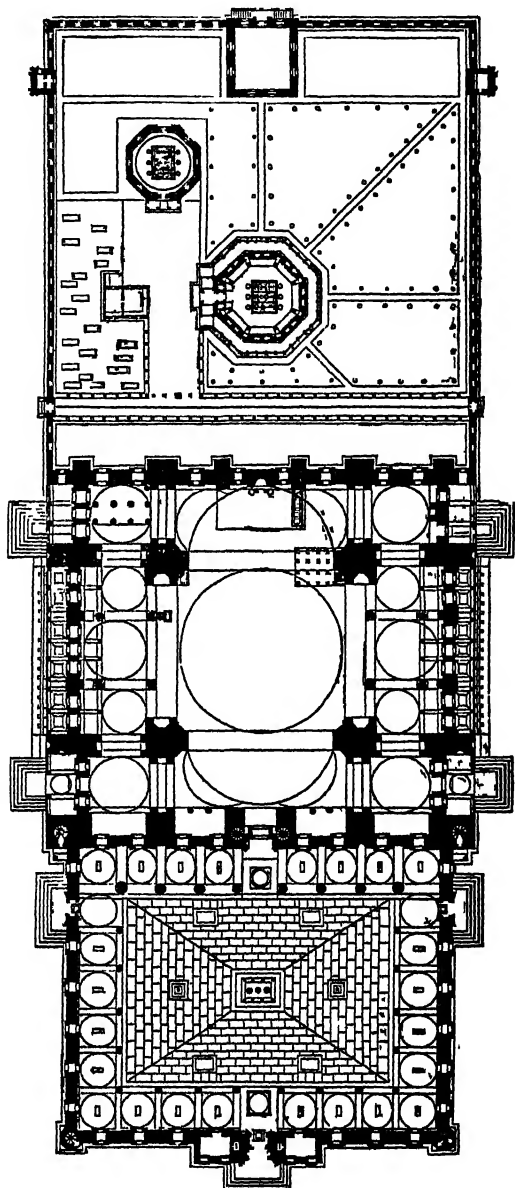


HALL OF THE AMBASSADORS, THE ALHAMBRA

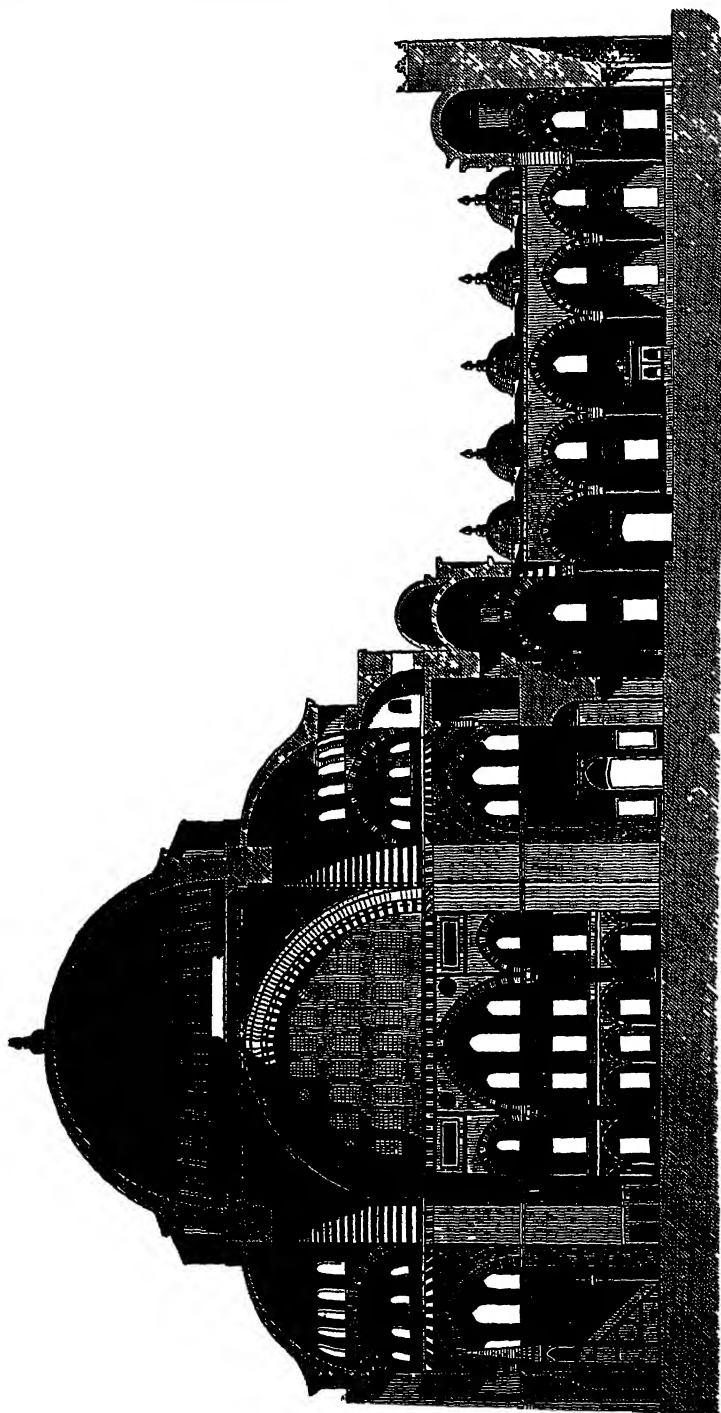
SULEIMANIE.

All these were, however, surpassed by that which was erected by Suleiman the Magnificent, between the years 1550-1555. It is still quite perfect in all its constructive parts, and little altered in detail, and as there is every reason to suppose that it equalled, or even surpassed, all others of its class, if it be illustrated the rest will be easily understood.

As will be seen from the plan,¹ the mosque itself is nearly square, 225 ft. by 205 over all externally, and covering between 45,000 and 46,000 sq. ft. In front is a forecourt, 150 ft. by 190 internally, surrounded by an arcade on all sides, and containing the fountains, which are the indispensable accompaniment of all mosques. Behind is the "garden" containing the tomb of the founder and those of his favourite wife and other members of the family. All this, properly speaking, is one design and one



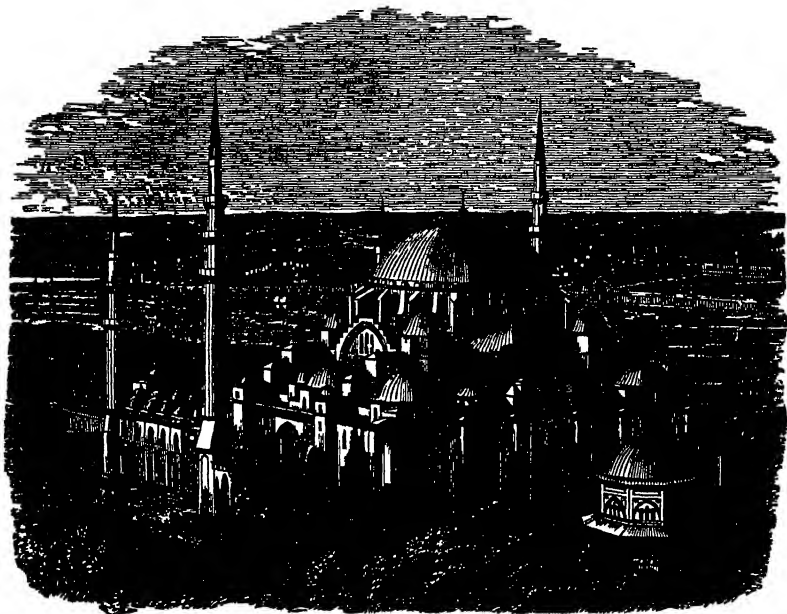
¹ For the plan and section of this mosque I was indebted to the kindness of my friend, the late M O Texier, who placed his MS plans at my disposal for the purpose of being engraved for this work.



Section of Suleimane Mosque. (By Texier.) Scale 80 ft. to 1 in.

building ; and all these parts are requisite to complete the establishment of a great imperial mosque.

Internally the construction rests on four great piers of pleasing and appropriate design , and the screen of windows on each side, under the great lateral arches of the dome, is borne by four monolithic shafts of porphyry of great beauty. These formerly supported statues in the hippodrome, and most probably were brought originally from Egypt. Each is 28 ft. in height, or, with the base and capital, 35 ft. The dome itself is 86 ft in diameter internally, and 156 ft. in height. This seems even a better proportion of height to diameter



999.

View of Süleimanie Mosque (From a Photograph by Bedford)

than that of Sta. Sophia, though the dimensions are so much less that it has not, of course, the same grandeur of effect. At Sta. Sophia the dome is 108 ft. in diameter, and 175 ft. in height, or 21 and 19 ft. more respectively. These smaller dimensions, as well as the absence in the mosque of all the mosaic magnificence of the church, and the presence of a good deal of modern vulgarity, render it extremely difficult to institute any fair comparison between the two buildings. On the whole, it may, perhaps, be said with truth, that the mosque is more perfect mechanically than the church ; that the constructive parts are better disposed and better proportioned ; but that, for artistic effect and poetry of design, the church still far surpasses its rival, in so far at least as the interior is concerned.

Externally the mosque suffers, like all the buildings of the capital, from the badness of the materials with which it is constructed. Its walls are covered with stucco, its dome with lead, and all the sloping abutments of the dome, though built with masonry, have also to be protected by a metal covering. This, no doubt, detracts from the effect; but still the whole is so massive—every window, every dome, every projection, is so truthful, and tells so exactly the purpose for which it was placed where we find it—that the general result is most satisfactory, and as impressive an external effect has been produced with one-half the expense of adornment requisite for a Gothic building of the same pretensions.

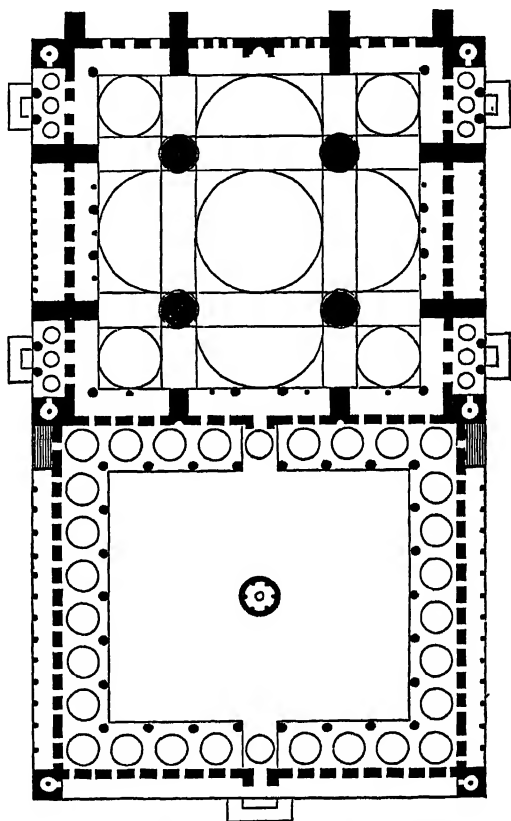
The tomb of the founder, which stands in the garden behind, avoids these defects. It is built in marble of various colours, and every detail is most carefully elaborated. It is too small—only 46 ft. in diameter externally—to produce any grandeur of effect, but it suffices to show that the architects of those days were quite competent to produce satisfactory designs for the exteriors of their buildings, if they had found appropriate materials in which to execute them.

Next in importance to the Suleimanie, among the Imperial mosques of Constantinople, is that which the Sultan Ahmed commenced A.D. 1608. The mosque itself is in plan somewhat larger than the preceding, measuring 235 ft. by 210, and covering nearly 50,000 sq. ft., but it is inferior both in design and in the richness or taste of its decorations. As will be seen from the plan (Woodcut No. 1000), it deviates still further than the Suleimanie from the design of Sta. Sophia; and in the exact ratio in which it diverges from that type, does it fail in producing an artistic effect. Its great defect is, that it is too mechanically regular. In the nave of Sta. Sophia the proportion of length to breadth is practically as two-and-a-half to one. In the Suleimanie it is nearly two to one, but the Ahmedjie is absolutely square. Without asking for the extreme difference between length and breadth which prevails in Gothic cathedrals, a design must have sides—there must be some point towards which the effect tends. In this mosque, as in the Pantheon at Rome, if the plan were divided into quarters, each of the four quadrants would be found to be identical, and the effect is consequently painfully mechanical and prosaic. The design of each wall is also nearly the same; they have the same number of windows spaced in the same manner, and the side of the Kibleh is scarcely more richly decorated than the others. Add to this, that all the windows are glazed with white glass, and that, above the marble wainscotting, whitewash has been unsparingly employed, and it will be easy to understand how the mosque fails in producing the effect which might fairly be expected from its dimensions and the general features of its design. Still, a hall nearly

200 ft. square, with a stone roof supported by only four great fluted piers, is a grand and imposing object, and has very narrowly missed producing the effect its builders were aiming at.

The external effect is more pleasing than the internal, the mode in which the smaller domes and semi-domes lead up to the centre produces a pyramidal effect that gives a very pleasing air of stability to the outline, and the six tall minarets go far to relieve what otherwise might be monotonous. It is said that this is the only mosque

in the Moslem world which has so many of these graceful adjuncts, except the mosque at Mecca, which has seven. The Suleimanie and Sta. Sophia have four; most of the others two, and some only one, but, whatever their number, the form of all is nearly identical with those of the Suleimanie (Woodcut No. 999). They are graceful, no doubt, but infinitely inferior to those of Cairo, or, indeed, of any country where this form of tower was long employed. We do not know whence the Turks first got this form, and it is very difficult to understand why they persevered so long in adhering to



1000 Plan of Ahmedye Mosque. (By Texier) Scale 100 ft. to 1 in.

it, after so many other more beautiful forms had been introduced among their co-religionists in other countries. But so it is; and everywhere its tall extinguisher roof is one of the first objects that warns the traveller that he has passed within the boundaries of the Turkish Empire.

Though very much smaller than those just described, that known as the Prince's Mosque is one of the most pleasing in Constantinople. It was erected in 1548, by order of Sultan Suleiman, by the same

architect—Sinan—who designed the great mosque, and who seems to have been the great architect of the reign of that magnificent monarch. The smaller mosque was erected in memory of his son Mahomet, and as a place of burial for him, and another of his sons—Mustafa—was also laid by his side. In accordance with this destination, this mosque bore a more solemn and gloomier aspect than the great mosques of the city. Their principal defect is the glare introduced through their numerous scattered windows, a defect which in this mosque is remedied with the most satisfactory results.

There are three imperial mosques in the city erected by Sultanas, and all bearing the name of Valide, which has given rise to some confusion in describing them. The most important of them is that at the end of the bridge of boats near the harbour, known as the "Mosque at the Garden Gates." It is somewhat late in date (1665), and has been a good deal whitewashed and otherwise disfigured; but on the whole it is of more artistic design than that of Ahmed, and, when fresh, must have been, for its size, as pleasing as any of the mosques in the city.

The Turks adhered so long to this form, and repeated it over and over again with so little variation, that it is extremely difficult to draw a line between what may be said to belong to the Middle Ages, and what to modern times. As late, for instance, as 1755 the Sultan Osman III. erected a mosque in the Bazaar, which externally is as pleasing as any of those in the city, and it requires a very keen eye to detect anything which would indicate that it is more modern than those of the age of Suleiman. It has the peculiarity, however, that there are no semi-domes, and the light is introduced through screens under all the four great arches of the central dome. In another locality the effect might be pleasing, but in the latitude of Constantinople the result is a glare of light which aggravates the usual defect of these designs. Even the Turks seem to feel this, as the mosque is generally known by the name of Nur Osmanlie, or Lantern of Osman, a designation which too correctly describes its leading characteristics.

CIVIL AND DOMESTIC ARCHITECTURE.

As about one-tenth part of Constantinople is burnt down every year, and the flames visit each quarter in tolerably regular succession, it would be in vain to look for anything worthy of the name of architecture among the temporary wooden structures dignified by the name of the "palaces" of the nobles. Partly from the jealousy of the Government, or partly, it may be, because the Turks have never felt quite secure in their European possessions, they never seem to have affected anything of a permanent character in their dwellings.

It might, however, be expected that in the palace of the Sultan something better would be found, but there are few things more disappointing than a visit to the Seraglio. In situation it is unrivalled, and it has been the habitation of powerful and luxurious sovereigns for more than fifteen centuries, yet it contains nothing that is worthy of admiration, and hardly anything that is even interesting from its associations. There is nothing within the enclosure which will stand comparison even with the plaster glories of the Alhambra; and the contemporary palaces of Persia, or of Delhi and Agra, surpass it to such an extent as to render comparison impossible.

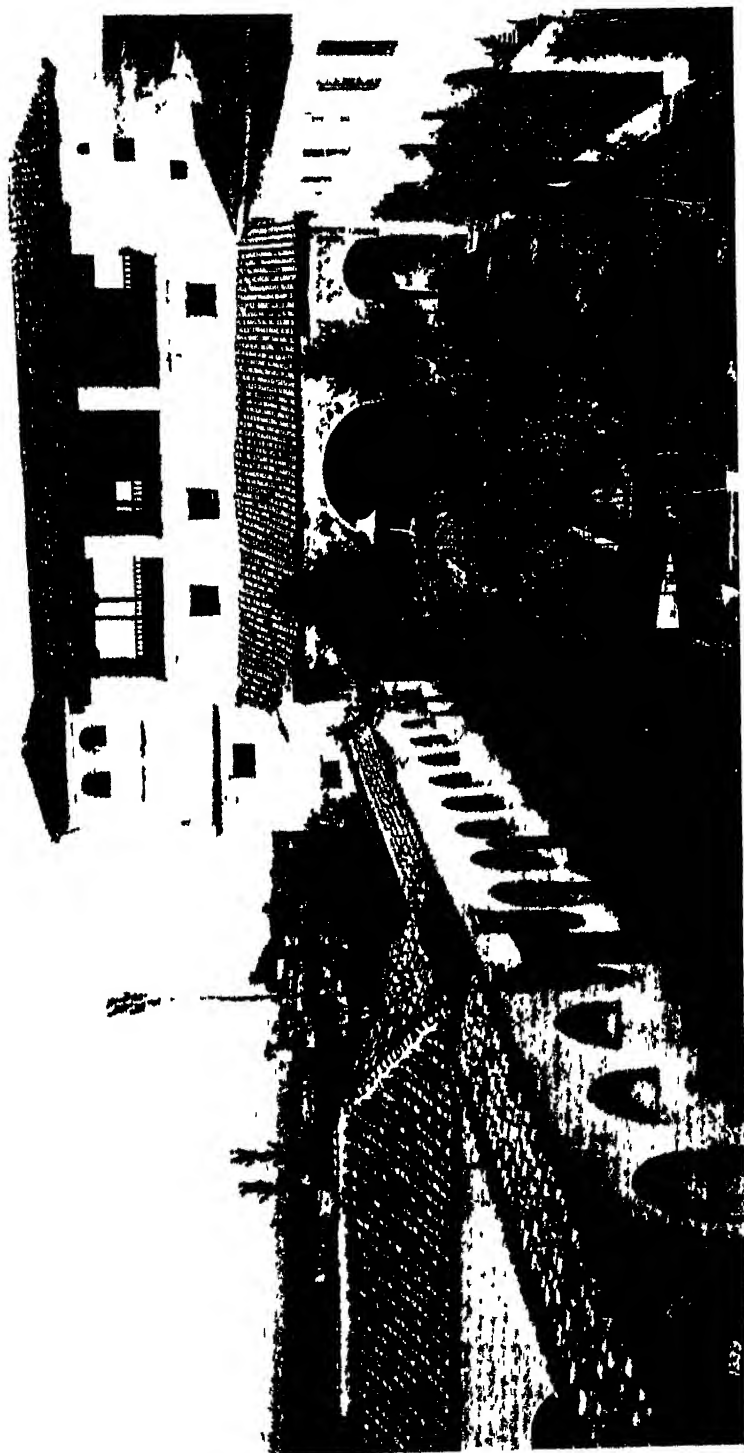
There is one pavilion, the walls of which are covered with Persian tiles, which is pleasing, both from its form and the mode of decoration. Besides this, the various halls being separate buildings and grouped without formality together, the effect of the whole is picturesque, though neither as parts nor as a whole have they any architectural merit.

Among the minor objects of architectural art none are more pleasing than the fountains which frequently adorn the public places in the provincial cities as well as in the capital, though their outline is by no means remarkable for beauty. They are generally a square block with a niche on each face, from a spout in which the water flows. The whole is crowned by a very deep cornice constructed in wood, but without any brackets or apparent means of support, which true architectural taste so inevitably demands. Their beauty, in consequence, depends almost wholly on their ornamentation. That, however, is of the most elaborate character, and not only pleasing in form, but rich in colour, of the same character, in fact, as that of the Alhambra, and pleasing from the same cause, in spite of defects in form.

It is probable that if the country towns, especially on the Asiatic side of the Bosphorus, were examined with care, examples might be found of domestic architecture exhibiting more care, and of a more permanent character than any in the capital. The true Turk evidently loves art, and has an instinctive appreciation of the harmonies of colour—probably, also, of form, and, if allowed an opportunity, would have produced much that is beautiful in architecture. The blood of the various races who inhabit the capital must, however, be very much mixed, and various other circumstances militate against any great development in that quarter. The subject seems worthy of more investigation than has hitherto been bestowed upon it, but the first appearance of the Turks among civilized nations was only as warriors pushing forward and fighting. When at last they settled on the shores of the Bosphorus it was at an age too late for much true architectural

development in Europe. On the whole, we ought therefore rather to be surprised that they did so much, than seek to know why they did not accomplish more. Sinan and Michel Angelo were employed simultaneously in erecting the two great religious edifices of their age in the two old capitals of the Christian world. The mosque at Constantinople is less than one-fourth the size of St. Peter's at Rome, but notwithstanding its comparatively small dimensions, it is far better in design, and a much more impressive building than its gigantic Christian rival. If the mosque had been constructed with better materials, and with somewhat increased dimensions, it would have stood a comparison with any building of its class ; and, even as it is, must be considered as one of the most successful designs of modern times.

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THE GENERALIFE, NEAR GRANADA, SPAIN

CHAPTER V.

PERSIA.

CONTENTS.

Historical notice—Tombs at Bagdad—Imaret at Erzeroum—Mosque at Tabreez—
Tomb at Sultanieh—Bazaar at Ispahan—College of Husein Shah—Palaces
and other buildings—Turkestan

CHRONOLOGY

	DATES		DATES.
Arab conquest of Persia	A D 641	Mahomed Khodabendah, builder of tomb	
Haroun al-Rashid began to reign	786	at Sultanieh, began to reign	A D 1303
Dynasty of Tatar Saamanides	874	Sufi dynasty	1499
Seljukian dynasty	1037	Abbas the Great, builder of Bazaar at	
Ghengis Khan	1205	Ispahan	1585
Ghazan Khan builds a mosque at Ta-		Husein Shah, last of the Sufis	1694
breez	1294	Tamerlane	1361-1405

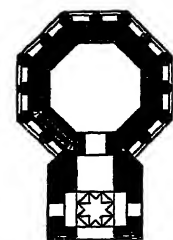
OWING to a curious concatenation of circumstances, partly local, partly ethnological, the architectural history of Persia is nearly a blank for the first six centuries of the Hejira. Nothing remains of the ancient glories of Bagdad except a few fragments of the walls of the Madrissa, and perhaps one or two tombs. Bussorah and Kufa are equally destitute of any architectural remains of the great age of the Caliphs. Indeed, there seems scarcely to be one single mosque or important building now remaining between the Euphrates and the Indus which belongs authentically to the earlier centuries of the Mahomedan era, and in such a state as would enable us to say what the style of those days was, or how far it resembled or differed from the contemporary styles in the neighbouring countries.

From what we know from history of the age of Haroun al-Rashid, it is probable that no Moorish court ever reached a higher pitch of enlightenment and magnificence than that of Bagdad during his reign (A.D. 786-809). It was also so far removed from the direct influence of the Byzantine style, that it is probable we should find in his buildings the germ of much which now comes abruptly before us without our being able to trace it back to its origin.

In the whole architectural history of the world there is scarcely so complete a break as this, and scarcely one so much to be lamented, considering how great and how polished the people were whose art is thus lost to us. Let us hope, however, that it is not entirely lost; but

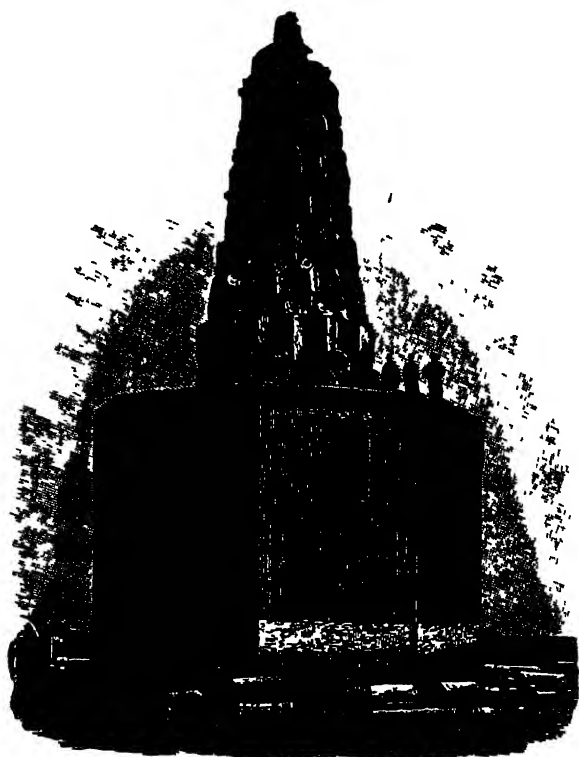
that some fragments may yet be recovered by the first who earnestly searches for them.

Meanwhile there is one tomb outside the walls of Bagdad known as the tomb of Zobeidé,¹ the favourite wife of Haroun al-Rashid, which may belong to this epoch; and even if it should prove to be more modern is interesting from its presenting us with a new form of pyramidal roof. It is an octagonal building, 80 ft. in diameter externally and 61 ft. high, with an entrance porch on one side. The walls are of great thickness and contain a staircase leading to the roof. The internal diameter is 42 ft. and is covered over with a roof of pyramidal form 45 ft. in diameter and rising to 90 ft. above the roof of the main building.



1001 Plan of Tomb of Zobeidé, Bagdad
Scale 100 ft. to 1 in.

The Sassanian method of covering over such a space would have been to span it with an egg-shaped dome similar to that which



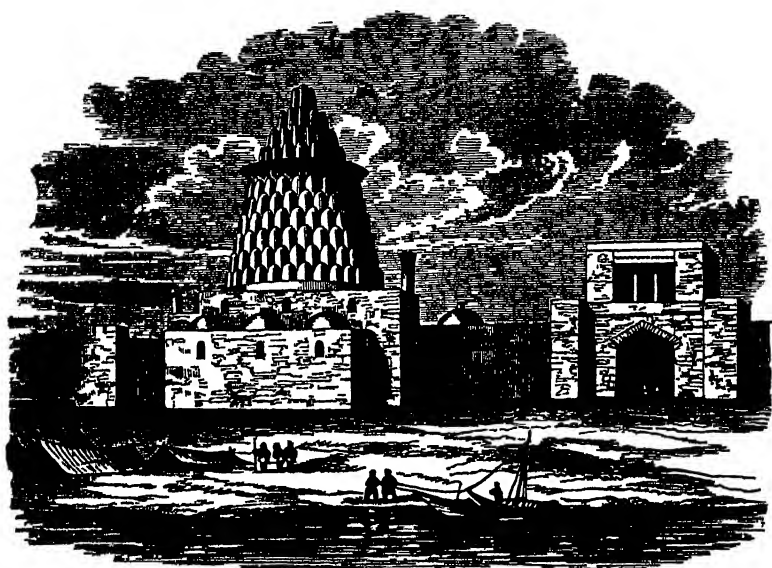
1002.

Tomb of Zobeidé, Bagdad.

we find in the central hall of Serbistan (Woodcut No. 259), which is

¹ For the plan of this building I am indebted to the unpublished drawings of the late M. C. Texier.

of the same diameter. Here, however, a much stronger form of construction would seem to have been adopted; a series of slightly pointed headed niches sixteen in number were built, projecting slightly, on arches thrown across the alternate angles of the interior. Above these were built a second range with a less diameter and therefore overhanging a little the lower range, the sides of the upper range resting on the centres of the niches below. In this way six more stages were constructed all in brick, gradually diminishing the diameter of the central space. Then comes a break which is emphasized in the extreme by a cavetto cornice, above which come three more stages but with eight niches only in each row, the upper one covering

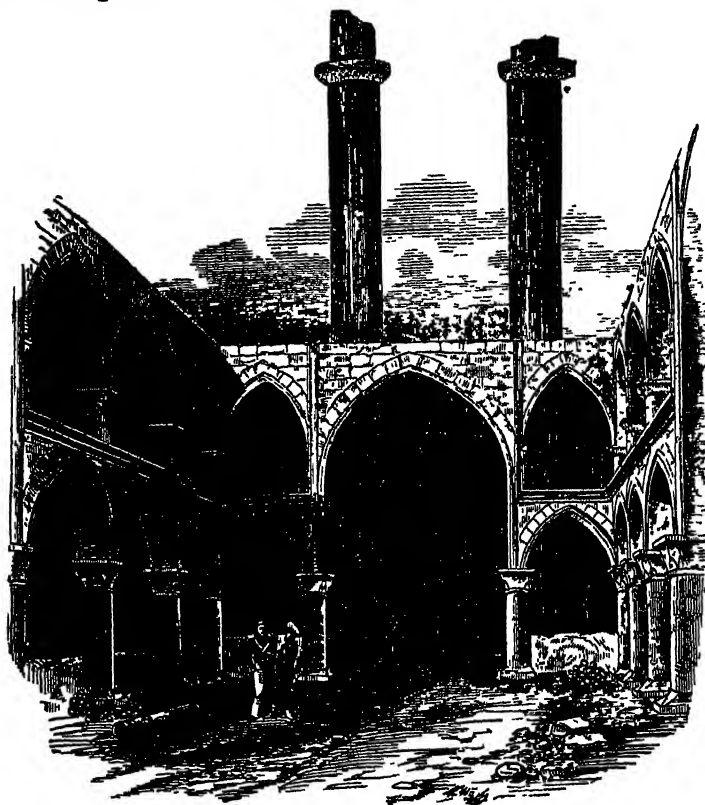


1003

Tomb of Ezekiel, near Bagdad. (From Texier and Pullan)

completely the whole pyramid. The interiors of these niches (which range in size from 5 ft. diameter and 10 ft. high in the lower range to 1 ft. 6 in. diameter and 5 ft. high in the upper range) are decorated with tiles and mosaic. The exteriors, both of this tomb (Woodcut No. 1002) and of that of Ezekiel (Woodcut No. 1003), which is of similar design, are covered over with stucco. Lamps were probably suspended by chains from the centre of each of these niches to judge by the holes now visible outside. Somewhat the same form occurs also at Susa in the so-called tomb of Daniel, and generally seems to be so usual in the age of the Caliphs, and is so peculiar, that it must have been long in use before it could have become so generally diffused. The chief interest which is attached to it is the possibility of its having been the source from which that essentially Saracenic feature the

stalactite vault has been obtained. It is not found in any other style, and although, in later work it is more often found in other materials, such as stone, plaster and wood, in these latter it has not the same constructional reason for its existence, in fact it has become a purely decorative feature. On comparing the tomb of Ezekiel (Woodcut No. 1003) with the pendentive shown in the porch of the ruined Mosque of Tahreez (Woodcut No. 1006) the same superimposed niches will be recognised.



1004. Imaret of Oulou Diami at Erseroum (From Texier's 'Arménie et la Perse.')

From these, which may belong to the age of the Caliphs, we pass at once to the Seljukians, who seem to have been possessed of stronger building instincts.

One of the earliest buildings of this race of which anything like correct illustrations have been published is the Imaret or Hospital of

¹ The steps by which the transformation may have been arrived at, passing through the traditional method of constructing vaults in plaster, which is still practised in Persia, were suggested in an article contributed to the Proceedings of the R. I. B. A., 1888, vol. iv., new series.

Oulou Diami, at Erzeroum—an arcade of two storeys, surrounding on three sides a courtyard 90 ft. by 45. It is broken in the centre by what in a Christian church would be called a transept. The woodcut here given (No. 1004) shows the general appearance of the arcade, and also the upper part of two minarets which flank the external porch. This porch is ornamented in the richest manner of the style. Opposite to the entrance a long gallery leads to the tomb of the founder, a circular building of very considerable elegance, the roof of which is a hemispherical vault internally, but a straight-sided Armenian conical roof on the outside. These dispositions make the plan of the building so similar to that of a Christian church, that most travellers have considered it as one, mistaking the court for the nave, and the tomb, with the gallery leading to it, for the apse and choir. There can, however, be no doubt but that it was originally built by a Mahomedan, for the purpose of a hospital, or place of rest for pilgrims, during the sway of the Seljukian princes in the 12th and 13th centuries, and that its similarity to a Christian church in plan is accidental, though its details very much resemble those of the churches of Ani and other places in Armenia. This, however, only shows that the inhabitants of the same country did not practise two styles, but arranged the same forms in different manners to suit their various purposes.

There is another mosque of about the same age as this one at Ani, which would show even more clearly this close analogy; but it has never been drawn with sufficient correctness to admit of its being used for the purpose of demonstrating the fact now pointed out. But, indeed, throughout Armenia, mosques and Christian churches constantly alternate, borrowing details from one another, and making up one of the most curious mixed chapters in the history of the art, a chapter still remaining to be written by some one who may visit the spot with sufficient knowledge and enthusiasm to accomplish it.

MOSQUE AT TABREEZ.

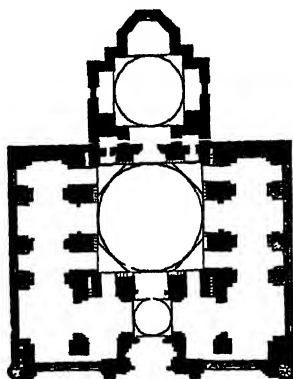
The next building that may be chosen for illustration is the ruined mosque at Tabreez, which, when perfect, must have been one of the most beautiful in the country. Its history is not exactly known; but it certainly belongs to the Mogul dynasty, which, on the death of Mangu Khan the son of Ghengis Khan, was founded in Persia by Hulaku, the brother of Mangu. He and his sons generally retained the faith of their forefathers till Ghazan Khan, who succeeded in A.D. 1204. Ghazan zealously embraced the Mahomedan faith, and it was apparently to signalise the conversion that he began this mosque; but whether it was finished by him or his successors is not evident. As will be seen by the plan, it is not large, being only about 150 ft.

by 120, exclusive of the tomb in the rear, which, as a Tartar, it was impossible he could dispense with.

In plan it differs also considerably from those previously illustrated, being in reality a copy of a Byzantine church, carried out with the details of the 13th century—a fact which confirms the belief that the Persians before this age were not a mosque-building people. In this mosque the mode of decoration is what principally deserves attention, the whole building, both externally and internally, being covered with a perfect mosaic of glazed bricks of very brilliant colours, and wrought into the most intricate patterns, and with all the elegance for which the Persians were in all ages remarkable.

Europe possesses no specimen of any style of ornamentation comparable with this. The painted plaster of the Alhambra is infinitely inferior, and even the mosaic painted glass of our cathedrals is a

very partial and incomplete ornament compared with the brilliancy of a design pervading the whole building, and entirely carried out in the same style. From the time, however, of the oldest Assyrian palaces to the present day, colour has been in that country a more essential element of architectural magnificence than form, and here at least we may judge of what the halls of Nineveh and Persepolis once were, when adorned with colours in the same manner as this now ruined mosque of the Tartars.



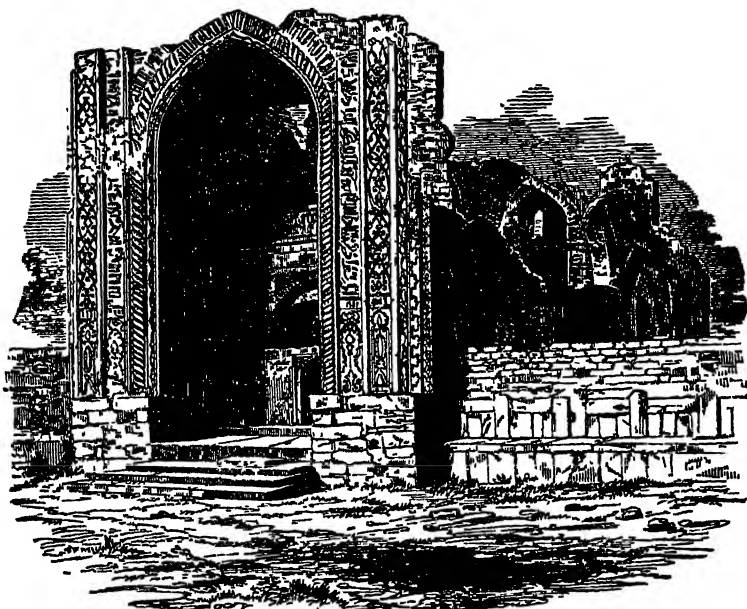
1006 Mosque at Tabreez
Scale 100 ft to 1 in.

Though of course impossible adequately to represent this building in a

woodcut, the view¹ (Woodcut No. 1006) of its principal portal will give some idea of the form of the mosque, and introduce the reader to a new mode of giving expression to portals, which after the date of this building is nearly universal in the East. The entrance-door is small, but covered by a semi-dome of considerable magnitude, giving it all the grandeur of a portal as large as the main aisle of the building. The Gothic architects attempted something of this sort, by making the outer openings of their doors considerably larger than the inner; in other words, by "splaying" widely the jambs of their portals. By this means, in some of the French cathedrals, the appearance of a very large portal is obtained with only the requisite and convenient size of opening; but in this they were far surpassed

¹ Both the plan and view are taken from Baron Texier's '*Arménie et la Perse*,' which gives also several coloured plates of the mosaic decorations, from which their beauty of detail may be judged, though not the effect of the whole.

by the architects of the East, whose lofty and deeply-recessed portals, built on the same plan as the example here shown, are unrivalled for grandeur and appropriateness.¹



1006. View of Ruined Mosque at Tabreez (From Texier's 'Arménie et la Perse')

The mosque was destroyed by an earthquake in the beginning of the present century, but it seems to have been deserted long before that, owing to its having belonged to the Turkish sect of the Somnites, while the Persians have during the last five centuries been devoted Shi-ites, or followers of the sect of Ali and his martyred sons.

TOMB AT SULTANIEH. (A.D. 1303-1316.)

Mahomed Khodabendah, the successor of Ghazan Khan, the builder of the mosque at Tabreez last described, founded the city of Sultanieh, and, like a true Tartar, his first care was to build himself a tomb² which should become the principal ornament of his new city. Ker Porter³ says that, being seized with as much zeal for his new Shi-ite

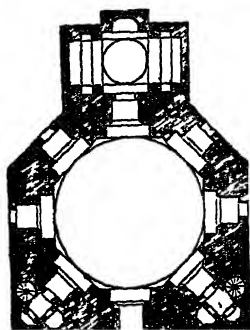
¹ The earliest attempt in this direction that I am acquainted with is the great portal of the palace at Mashita (Woodcut No. 268).

² Texier, from whose work the illustrations are taken, ascribes the building to another Khodabendah of the Sufi dynasty, A.D. 1577-85. Our knowledge however,

of the style is sufficient to show that the monument must be 200 or 300 years older than that king; and besides, the Sufis, not being Tartars, would not build tombs anywhere, much less in Sultanieh, where they never resided.

³ 'Travels,' vol. i. p. 277,

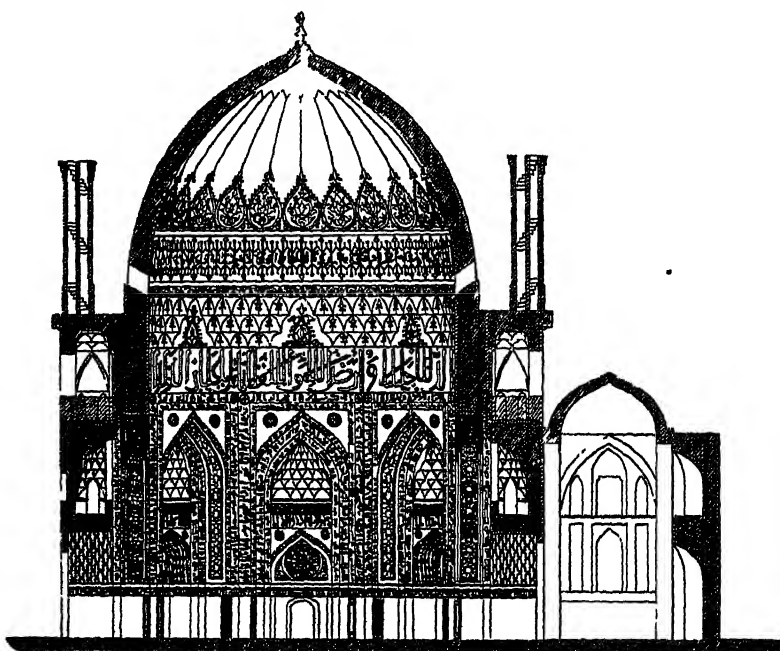
faith as his predecessor had been for the Somnite, his intention was to lodge in this mausoleum the remains of Alī and his son Hossein. This intention, however, was not carried into effect, and we know that his own bones repose alone in their splendid shrine.



1007. Tomb at Sultanieh.
Scale 100 ft to 1 in.

In general plan the building is an octagon, with a small chapel added opposite the entrance, in which the body lies. The front has also been brought out to a square, not only to admit of two staircases in the angles, but also to serve as a backing to the porch which once adorned this side, but which has now entirely disappeared.

Internally the dome is 81 ft. in diameter by 150 ft. in height, the octagon being worked into a circle by as elegant a series of brackets as perhaps ever were employed for this purpose. The form of the dome, too, is singularly graceful and elegant, and much preferable to the bulb-shaped double

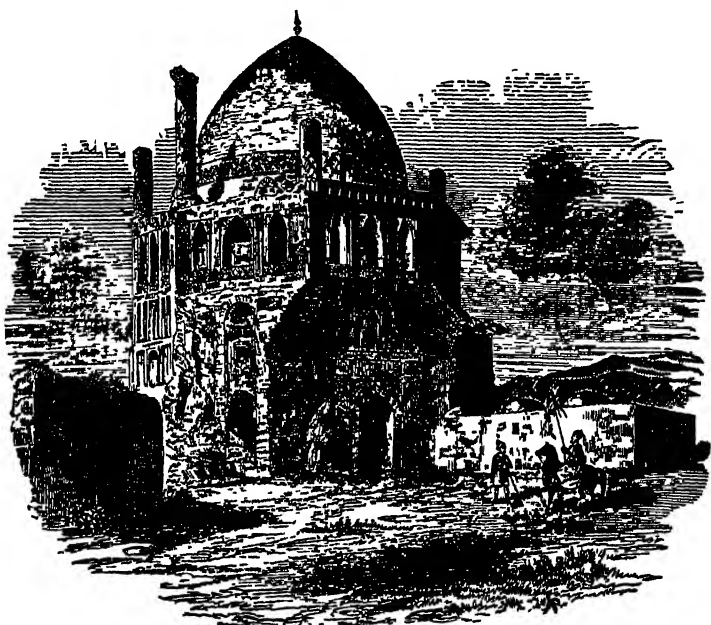


1008. Section of the Tomb of Sultan Khodabandah at Sultanieh (From Texier's 'Arménie et la Perse')
Scale 50 ft to 1 in.

domes subsequently common in Persian architecture. The whole is covered with glazed tiles, rivalling in richness those of the mosque at Tabreez, and with its general beauty of outline this building affords

one of the best specimens of this style to be found either in Persia or any other country.

These works were, however, far surpassed in magnificence, though not in beauty, by those of the dynasty of the Sufis, who succeeded in 1499. The most powerful and brilliant sovereign of this race was Shah Abbas the Great (A D. 1585–1629), whose great works rendered his capital of Ispahan one of the most splendid cities of the East. Among these works, by far the most magnificent was the great *Mardan*, or bazaar, with its accompanying mosque and subordinate buildings. The Maidan is an immense rectangular area, 2600 ft. by 700,¹ surrounded on all sides by an arcade two storeys in height, consisting



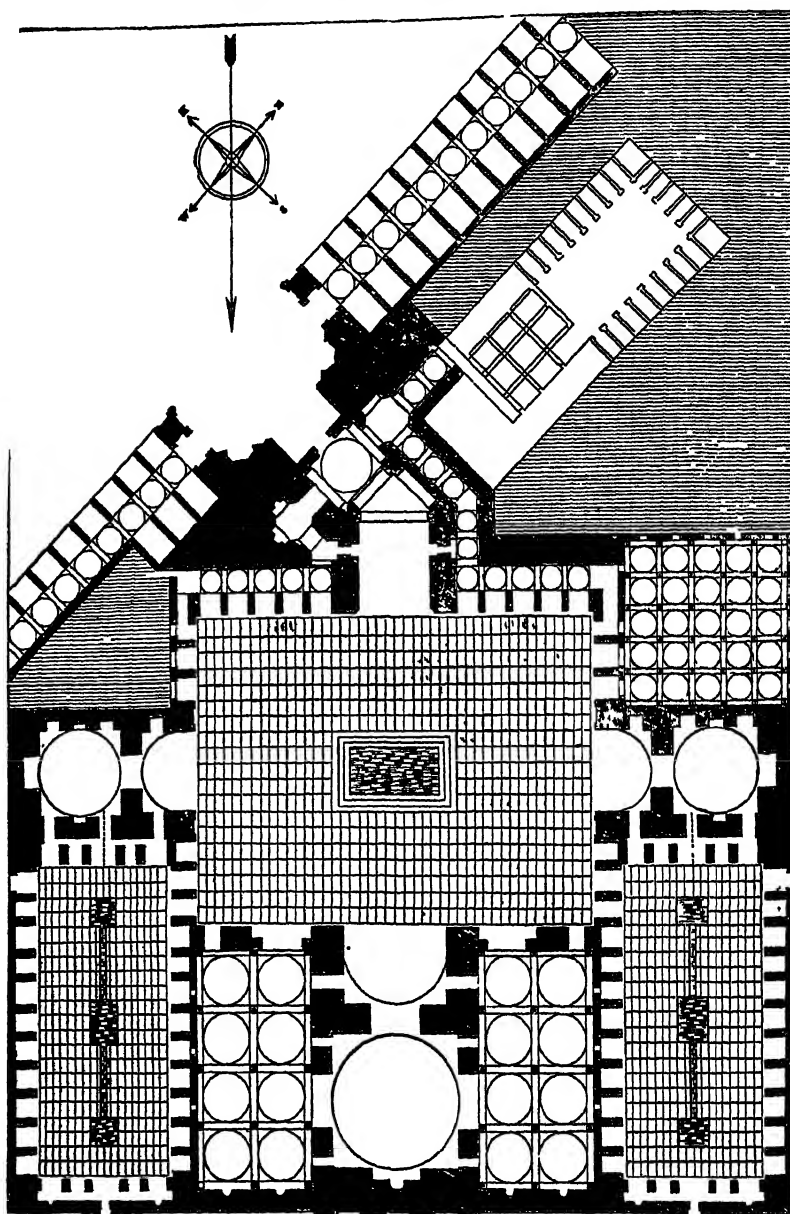
1009.

View of the Tomb at Sultaneh

of 86 arches on the longer and 30 on the shorter sides, richly ornamented, and broken in the centre of each face by a handsome edifice. The great mosque is at one end, opposite to which is the bazaar gate, and in the longer side the Luft Ullah mosque, facing this is the Ali Kassi gate, which, in its various storeys and complicated suites of apartments, is in fact a palace rather than a gateway as we understand the term.

¹ Ker Porter's 'Travels,' vol. i p. 432
et seq I cannot help suspecting that there
 is some mistake about these dimensions
 —they seem excessive. The Piazza of St. Mark's at Venice, which resembles it more
 than any other area, is only 560 ft long,
 with a mean breadth of about 250 ft.
 Probably 1500 feet by 500.

The dimensions of the Great Mosque, or Mesjid Shah, may be judged of from the following plan. As will be perceived, the Maidan not facing



2910. Great Mosque at Ispahan. (From Texier's Work.) Scale 100 ft. to 1 in.

Mecca, a bend is made in the entrance, which, however, is far from being unfavourable to the general picturesque effect of the group.

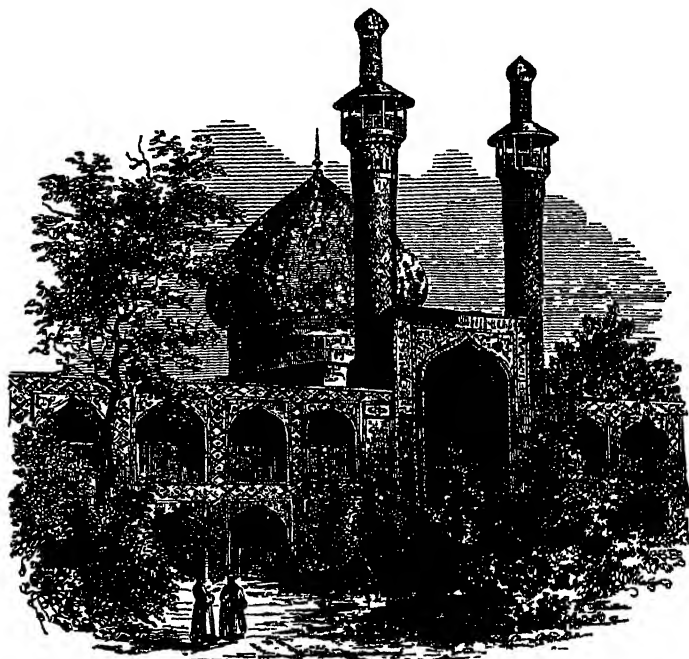
The mosque itself is a rectangular building, the internal dimensions of which are 223 ft. by 130, the centre compartment being surmounted by a dome 75 ft. in diameter and 110 ft high internally; but being double, like most domes of this age, its external height is 165 ft, which is also the height of the minarets attached to the mosque. On three sides the mosque is surrounded by courtyards, richly ornamented, and containing fountains and basins of water for the prescribed ablutions of the faithful. The principal court measures 225 ft. by 170, and surrounded as it is on all sides by façades in the richest style of Persian polychromatic decoration, the brilliancy of its architectural effect is almost unrivalled by any other example of its class. Both in architectural forms and in the style of ornament this mosque is inferior to those at Tabreez and at Sultanieh; but for mass and amount of decoration it is among the most magnificent specimens of its class. Taken altogether, the Maidan Shah, and its accompanying mosques and gates—the whole the work of one king and on one design—present a scene of gorgeous, though it may be somewhat barbarous, splendour, almost unequalled in the whole world. Even now, in its premature decay, it strikes almost every traveller with astonishment, though the style is not one that looks well in ruin, owing to the perishable nature of the materials employed, and the tawdry effect of glazed tiles, when attention is drawn to the fact that they are a mere surface ornament to the walls.

The forms and peculiarities of this style will be better judged of—in a woodcut at least—by the representation of the Madrisa, or college, of Husein Shah (Woodcut No. 1001), the last of the Sufi kings of Persia; and though erected at the end of the 17th century, while the great mosque was built in the beginning of it, but little change seems to have taken place in the interval the minarets are of the same form, the double bulb-shaped dome is similar, and the double arcades that surround the court of the mosque are the same in form as those that encircle the Maidan Shah.

From the time of the Afghan invasion, which took place during the reign of the Sultan Husein in the beginning of the last century, Persia does not seem to have recovered herself sufficiently to undertake any great works, some palaces, it is true, have been built, and mosques of inferior dimensions, but nothing really remarkable of late years. The influence of the corrupt styles of Europe has become too apparent to enable us to hope that she will ever again be able to recover her place in the domain of art.

Although it was sometimes brilliant, and always truthful, the Persian Saracenic is hardly entitled to rank among the really great or admirable styles of architecture. Its chief historic interest rests on the fact of its being a modern reproduction of the style of the ancient palaces of Nineveh and Babylon, using the same thick walls

of imperfectly burned bricks, and covering them with the same brilliant coloured decorations of glazed and painted tiles and bricks, carrying this species of decoration to an extent never attempted in any other part of the world. This too constitutes its principal claim to interest in an artistic point of view, since it shows how far polychromatic



411. Madrisa of Sultan Hussein at Isfahan. (From Flandin and Coste's '*Voyage en Perse*.')

decoration may be used, both internally and externally, not only without any offence to good taste, but with the most complete success in producing that beauty and splendour which is the aim of all architectural utterance.

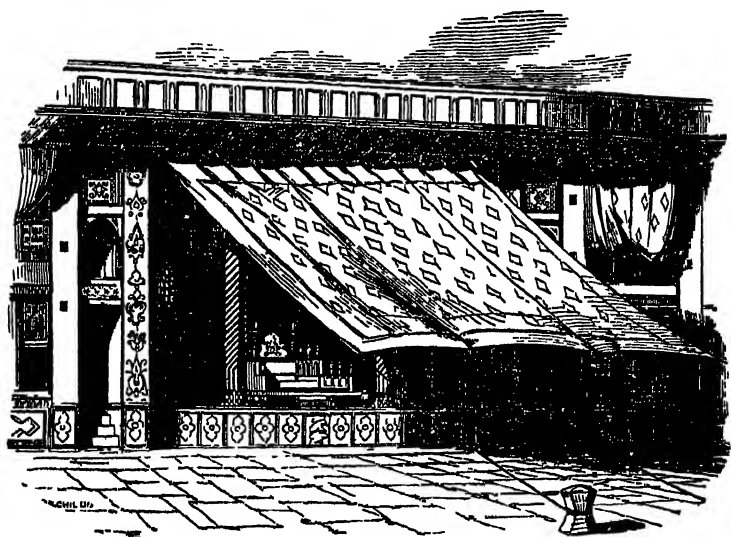
PALACES.

The Persian princes showed almost as much taste and splendour in their palaces as in their mosques; but these were not from their nature so capable of architectural display as the others. An Eastern palace neither requires that mass of apartments and offices which are indispensable in Europe, nor does the climate admit of their being massed together so as to form a single group, imposing from its size. On the contrary, the Persian palaces generally consist of a number of pavilions and detached halls, and smaller groups of apartments scattered over a large space interspersed with trees and gardens, and only

connected by covered arcades or long lines of canals, the centre of which is adorned by fountains of the most elegant forms.

Individually these detached buildings are often of great beauty and most elaborately ornamented, and the whole effect is pleasing and tasteful, but for true architectural effect they are too scattered, and the whole is generally very deficient in grandeur.

The Throne-room at Teheran (Woodcut No. 1012) is a fair specimen of these buildings, though, in fact, it is only a porch or deep recess opening on a garden, the front being supported or ornamented by two twisted columns. In front of these a massive curtain is drawn out when the room is used, and both for colour and richness of effect the curtain is virtually the principal feature in the composition.



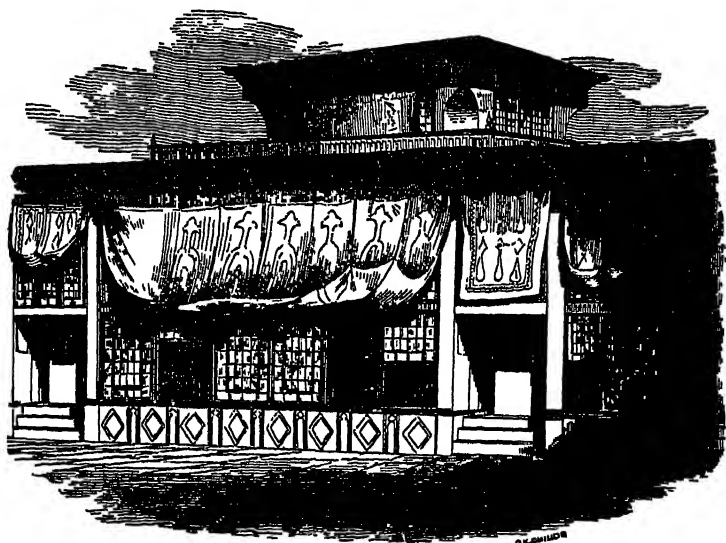
1012. Throne-room at Teheran. (From 'Nineveh and Persepolis Restored')

The next example is taken from the palace of Char Bagh, or the "Four Gardens," at Ispahan, and shows the general picturesque form these buildings assume. It is by no means so favourable a specimen as the last, though this may arise more from the nature of the building than from any defect on the part of its architect. Many of the pavilions in the same palace are of great lightness and elegance, though, most of them being supported by wooden pillars, and being of very ephemeral construction, they hardly belong to the higher class of architectural art.

The Caravanserais form another class of buildings, not peculiar, it is true, to Persia, but which, from the character of the traffic in merchandise, and the general insecurity of the roads along which it is conducted, has received a great development in that country. Inter-

nally, their usual form is that of a square courtyard, surrounded by a range of arcades generally two storeys in height, each arch opening into a small square cell at the back. Externally they present only a high plain wall, surmounted by battlements and flanked by towers at each angle, and sometimes also by additional towers in the longer faces. The principal architectural ornament is lavished on the gateways, which are almost always higher than the contiguous walls, and often display great beauty of design combined with considerable elaboration of detail.

It is not, however, only in these larger monuments that the Persians show an appreciation of the beautiful and a power of expressing it. As in most Eastern nations, the feeling seems innate, and all the minor objects they fabricate exhibit it, as well as the more important



1013.

Palace at Ispahan. (From 'Nineveh and Persepolis Restored.') G. L. L. L.

ones, and it is to the former that we must probably look in future for examples of Persian art, for her political position is such that she will hardly be able soon to attempt anything great or important in architectural art. There are still, however, resident in that country remnants of those races who built the palaces of Babylon and Nineveh; and if an opportunity were afforded them, they might still do something, if allowed to do it in their own way. It is to be feared, however, that European influence is extending through that country too fast for art; and that if they attempted anything, it will be only in the bastard Italian style, which, with the round hat, seems destined to make the tour of the globe.

TURKESTAN.

The progress of the Russians in Northern Asia has recently opened up whole regions that hitherto have been hidden from the light of European research, and the beautiful paintings of Verestchagin have rendered us familiar with the splendour of the capital of Timur the Lame. Unfortunately, however, no photographs have yet been published of Samarcand, and no plans of the buildings of that far-famed city. We have not seen any such detailed descriptions as would enable us to speak with anything like certainty of their affinities or difference with other buildings of the same age. All that



1014. Pavilion in the Khan's Palace at Khiva. (From a view in 'The Graphic')

can be said with certainty is that the great Mosque and Tomb of its founder at Samarcand are erected in the same style as the mosque at Tabreez (Woodcut No. 1006), and the tomb at Sultanieh (Woodcut No 1009), and other buildings in Persia and Armenia, with only such slight differences as might be expected from their more northern locality. The whole façade of the mosque, together with minarets and domes, is covered with painted tiles—so far as can be ascertained—of extreme beauty of design, and the tomb is surrounded by screens of marble trellis-work very similar to what we find afterwards in the works of Timour's descendants at Agra and Delhi. The great interest, in fact, that attaches to these buildings arises not so much from their own intrinsic value as because they form a connecting link between the style of Persia and that of the Great Mogul dynasty in India, and,

when properly investigated, they will serve to explain much that is now obscure in the history of the art in that country.

The buildings of these Northern capitals will probably also prove interesting as historical indications in another direction, as they retain traces of a modern style of architecture which, notwithstanding the distance in time, seems to be traceable back to the palaces of Nineveh and Persepolis. Verestchagin's paintings gave several illustrations of this style, which in a modified form is found in the oldest cave temples in India. Its most marked peculiarity is the elongated bulbous form of the shaft, rising from a broad shoe-like base, and supporting a small bracket capital. The sketch on the previous page of a pavilion at Khiva explains its general features, but its merits as an architectural form arise from the beauty of the carved details with which it is ornamented, which cannot be expressed in so small a scale.

We probably know enough now of Northern Asia to render it probable that we can hardly expect to find there any buildings of great antiquity, or any of greater magnificence than those of Samarcand, but it seems equally, or more clear that, when properly investigated, these buildings will supply many missing links in our history, and explain a great deal that now seems mysterious.

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BOOK II.

ANCIENT AMERICA.

CHAPTER I.

INTRODUCTORY.

CHRONOLOGY :

	DATES		DATES.
Toltecs arrived in Anahuac	A.D. 848	City of Mexico founded	A.D. 1125
Toltecs abandoned the country . . .	1051	Almíctzil conquered Guatemala	
Chichimecas arrived	1170		beginning of 16th century
Acolhuans arrived	about 1200	Spaniards arrived	1519
Aztecs reached Tula.	1196		

ALTHOUGH considerable progress has been made during the last few years in clearing away the mists that hang over most of the problems connected with American antiquities, much still remains to be done before we can give a distinct or satisfactory answer to many of the questions that arise regarding them. We cannot yet say positively whether the Toltecs, the Aztecs, and other tribes who inhabited the Valley of Mexico, were successive waves of one great immigration from the North, or whether they belonged to different races of mankind. We cannot tell whether there was any connection between the civilisation of Mexico and Peru. The historical difficulties are far from being settled, and, more than all these, it is still a matter of doubt whether American civilisation is wholly original and indigenous, or whether any portion of it was derived from the Old World.

The one consolatory fact in all this perplexity seems to be, that the materials certainly do exist by which it can be removed. So soon as any one conversant with such inquiries will undertake the investigation on the spot, he will be able to arrange all the buildings into chronological series, and fix at least their approximate dates. He will also be able to say how far the buildings in one province are akin to those in another, and to separate those which belong to other races; and he will be able to tell us whether there is any essential similarity between the styles of the Old and the New World, or whether the latter

¹ For a revision of this chronological scheme as applied to architecture, consult the Appendix, note 19.

be really original. Whenever a sufficient number of photographs reach Europe the investigation may be undertaken here, but it will be very much easier on the spot. Hitherto the great difficulty has been that the drawings of American monuments—especially those published by Humboldt and Lord Kingsborough—cannot be depended upon. The one bright exception to this censure are those of F. Catherwood,¹ both those which he published separately, and those with which he illustrated the works of Mr. Stephens.² Had that artist undertaken to classify his work in a chronological series, he doubtless could have done it; but as the arrangement of the plates is purely topographical, and they are so far reduced to a common denominator by the process of engraving, the classification can hardly now be attempted by one not familiar with the buildings themselves. In the meanwhile there seems no good reason for doubting the conclusion which he and Mr. Stephens arrived at, that the cities which they rediscovered were those which were inhabited and in the full tide of their prosperity at the time of the Spanish Conquest. The buildings which we now see in ruins were probably then all in use, and many may have been in progress and unfinished at the time of that great disaster. On the other hand, it is extremely doubtful if any building in Central America can date from five centuries before that event: in Mexico some may be older, but their title to greater antiquity has not yet been satisfactorily made out.

Whatever uncertainty may exist with regard to Mexican history, there is nothing in it that can strictly be stigmatised as fabulous. The Mexicans do not pretend to any very remote antiquity or divine descent. There are no heroes who live thousands or tens of thousands of years; nor any of the other extravagances that usually mark the dawn of history in the Old World. On the contrary, the Mexican annals modestly commence with the arrival of the Toltecs in Anahuac in the 5th or 6th century, and with the beneficent teaching of a stranger, Quetzalcoatl, who lived among them, taught them architecture and the agricultural arts, instructed them in their religious duties, and then, like Lycurgus fifteen centuries earlier, left them by sea, promising to return.

For 300 or 400 years from this time the Toltecs lived in peace and prosperity, covering the table-land, it is said, with their monuments. But evil times came; famine, internecine wars, and disasters—interpreted as evidences of the wrath of the gods—drove them from their homes, and they migrated, it is said, southwards to Yucatan;

¹ 'Views of monuments in Central America, Chiapas, and Yucatan.' 25 plates, folio. London, 1844.

² 'Incidents of Travel in Central Ame-

rica and Yucatan,' by J. L. Stephens. 1st and 2nd series, 4 vols. 8vo. Murray, 1841, 1843

where it is usually assumed that they erected the architectural monuments we now find in that country.

Central America is, however, one of the most fertile countries in the world, and capable of supporting—indeed did support—an immense population with very little labour ; so it seems probable that it was inhabited long before the time mentioned ¹ This, however, by no means militates against the idea that the Toltecs may have been the first to communicate to their new country many of the arts they had elaborated in Anahuac. Indeed, it is to such a combination of two not very dissimilar races that all the greatest results in art or civilization have been attained in other parts of the world, and it may have been the case here also.

Politically the annals of Anahuac are a blank between the departure of the Toltecs and the arrival of the Aztecs in the middle of the 12th century. These seem to have been a people of different race from the former occupants of the valley, but sufficiently akin to take up the previous civilization ; and being reinforced by successive immigrations of tribes of the same race, and speaking apparently similar languages, they had at the time of the arrival of the Spaniards fully re-peopled the valley and elaborated a very considerable degree of civilization.

Again everything we read of, and every indication we have, leads us to suppose that the greatest development of civilization in Mexico took place immediately before the Spanish Conquest, and thus that the time of highest prosperity was that which directly preceded its destruction. Four centuries had apparently sufficed to convert a tribe of Red Indians into a tolerably civilized community. Whatever their civilization may have been, it could not have attained a very permanent character, for it vanished like a phantom at the first touch of the European ; and the remnants of the Indians who still remain are as incompetent creatures as exist in any part of the world.

Till the investigations of the ethnologist are further advanced, it is impossible to feel any great confidence in the various theories that have been advanced on this subject. Without wishing to put it forward as a thing to be relied upon, it appears to me that the following scheme meets more nearly than any other the requirements of the case, while it amalgamates more perfectly the various facts ascertained by scientific men.

It is generally admitted that two races of men are found, either now living or whose remains are found in Mexican sepulchres. One of these is said to be allied to the Esquimaux, or races of that class,

¹ The evidence collected by the Abbé | huantepec,' seems, if it can be depended
Brasseur de Bourbourg, 'Voyage de Te- | upon, to confirm this idea.

the other to the Red Indians. The former, I cannot help thinking, represent the Toltecs. It does seem that all along the east coast of America, from Behring's Straits to California, races have always existed more or less closely allied to the Kamtchatdals or Esquimaux ; and these may, at some early period, have advanced to the plains of Mexico. If they were of that blood there is no difficulty in understanding how they became builders

On the other hand there seems little doubt that the Aztecs were Red Indians, allied to those tribes who, so far as we know, always inhabited the Valley of the Mississippi and the countries to the eastward of it. They may have been capable of taking up an earlier civilization, and, if their blood was mixed at all with the earlier inhabitants, of carrying it further ; but in themselves they are utterly unprogressive and incapable of developing any attributes of civilized life.

In Yucatan we certainly have another race, but whether they were Caribs, or some other people whose traces have been lost, cannot now be easily ascertained. In Peru, and possibly also further north, there is certainly a strongly developed Polynesian element, and there may be other races still ; but these four alone, mixed in varying quantities, are more than sufficient to account for all the varieties we find there in the course of our inquiries.

There still remains one question which is more germane to our present subject than even the others ; though perhaps on the whole still more difficult to answer. It is this. Are the civilization and arts of the ancient Americans original and indigenous, or did they receive any impulse from the natives of the Old World ? One part of this may easily be disposed of. The absence of all domestic animals, the possession of only one of the cereals, the total ignorance of alphabetic writing and of the use of iron—though the country is full of the ore—and many other minor facts, seem sufficient to prove that no immigration of tribes or families could have taken place in such numbers as to bring their animals, their grain or their materials, with them. This, however, by no means precludes the possibility of many missionaries having reached their shores, who, though bringing nothing but what they carried in their brains, could communicate doctrines, teach arts, and improve processes, and so communicate much of the civilization of the countries from which they came.

Without laying too much stress on the somewhat mythic story of Quetzalcoatl, though there seems no good reason for doubting its main features, we have only to refer to the history of India between 250 B.C. and 700 A.D. to see what missionary zeal prevailed in those days. Asoka set the example, and by his missionaries and their successors the doctrines of Buddha were propagated from the shores of the

Mediterranean to the Yellow Sea, or, what is more to our purpose, we have only to read the travels of Fa Hian and Hiouen Tsang to see what dangers by land and sea the Chinese missionaries between the 4th and 7th centuries were prepared to brave in the service of the faith. It probably would have been easier to travel to Mexico from China *via* Behring's Straits than to reach India through Central Asia, and to return from Ceylon by sea. Whether or not such a journey was ever accomplished, is another question. I do not think that either Neumann¹ or D'Eichthal² have at all made out a satisfactory case to prove that the country of Fusang, from which the pilgrim Hoei Shin returned to China in the year 499, was Mexico. On the contrary the evidence of the domestic animals, &c, he speaks of, and other important details, all seem to tell the other way. It looks more as if Vancouver Island, or the coast thereabout, was the place indicated. But are there any remains of a half-civilized people there? Be this as it may, the story, which is authentic as far as it goes, seems to prove that Northern America was in communication with Northern Asia in the 5th century.

D'Eichthal's argument, that the Mexican sculptures are Buddhist, seems even more groundless. I have carefully examined the examples he adduces, and, from a tolerably intimate acquaintance with Buddhist art in Asia, may be permitted to say that I can see no trace of it in Mexico. If the argument were based on that Serpent-worship which almost everywhere underlies Buddhism in the Old World, it would not be so easy to refute it. There is a very considerable likeness between the sculptured forms of the Serpent-worship in the Old and in the New World. But it is a serious question, whether this arose from a similar instinct in the two races, or was communicated from the one to the other. My present impression is in favour of some intercommunication in so far as Serpent-worship is concerned.

Our knowledge of the architecture of Eastern Asia and of Western America is not yet sufficiently precise to enable us to base any very pointed argument upon it. It is curious, however, that as we advance eastward from the Valley of the Euphrates at every step we meet with forms of art becoming more and more like those of Central America. When we reach the sea we encounter at Suku in Java a *teocalli*, which is almost identical with that of Tehuantepec.³ In Cambodia we have *teocallis* at Bakong and Bakeng, and no one would be startled if told that representations of some of the temples at

¹ *Ausland*, 1845, Nos. 165, 168.

² D'Eichthal, '*Revue Archæologique*,'
vol. x. 1864, p. 188, and following numbers.

³ Sir Stamford Raffles's '*History of Java*,' vol. II. p. 51.

Ongeor Thom in Cambodia were really taken from buildings found in Yucatan. In China many of the crinkum-erankums of their art find their close counterparts in America. But for the distance and the geographical difficulties, no one probably would hesitate to admit that the architecture of America may have been borrowed from the Old World. But how did it cross the ocean? At present that barrier seems almost insurmountable. But it may not always remain so: the inquiry is still in its infancy, and the tendency of all recent researches has been to show that there were more means of communication and a more direct connection between the nations of the world in ancient times than we have hitherto been disposed to believe was likely or even possible.

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CHAPTER II.

CENTRAL AMERICA.¹

CONTENTS.

Historical Notice—Central American style—Temples—Palaces—Buildings at Palenque—Uxmal, &c.

THE Valley of Mexico, in which the first group of buildings we have to describe is situated, is a small tract in the centre of the table-land of Anahuac. Though not larger than Yorkshire, and one-third of it permanently under water, it was, at the time we first became acquainted with it, divided into three or four small States, which, notwithstanding continual wars among themselves, had managed to acquire a considerable degree of material prosperity. After making every allowance for the exaggeration of the Spanish and native historians, the remains of the Aztec capitals attest an amount of population and a degree of organisation which it is impossible to overlook or deny, and it seems that it was at their last moment that this development was greatest; for, immediately before the Spanish Conquest, all the States of the valley, tired of their ruinous wars, had joined their forces together, and, thus combined, proved more than a match for any of the surrounding States. They spread their arms and influence to the Mexican Gulf, penetrated to the shores of the Pacific, and on one occasion are even said to have crossed the Isthmus of Tehuantepec, and reached the confines of Guatemala. These last expeditions seem to have been undertaken merely to obtain prisoners for their horrid rites of human sacrifice, of which they were becoming passionately fond; and they made no settlement in these countries sufficient to influence either their arts or institutions in any way. Shortly after this, the conquest of the Spaniards under Cortes put an end to the kingdom and power of the Aztecs for ever.

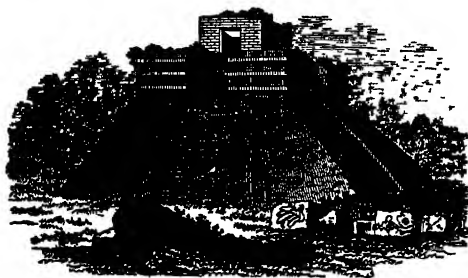
The principal monuments of the valley are the Teocallis—literally Houses of God—the Temples of the people. These are pyramids in terraces with flat tops, and always surmounted by a chamber or cell which is in fact the temple itself. They seem to be of all ages, for if one may trust the tradition, that of Cholulu is as old as the early Toltecs, whereas the great teocalli of the city of Mexico was only finished five years before the discovery of America by Columbus, and the Spaniards met with many persons who had assisted in its erection. It has, however, with all the native buildings of the city, been

¹ See Appendix, note 20.

swept away by the ruthless bigotry of the conquerors. Independent of its own interest, this is the more to be regretted, as the possession of a single monument of authentic date would form a starting-point for our investigations and serve as a check on all our theories.

Of these teocallis, the largest, probably also the oldest, is that of Cholulu. Its dimensions, in so far as they can be ascertained in its present ruinous state, are 1440 ft. square and 177 ft. in height, divided in four storeys, the fifth being formed by the cell or temple, which has now been replaced by a chapel dedicated to the Virgin Mary. The whole is composed of badly-burnt bricks and mud, and is now so overgrown with trees that it is difficult to make out its form, but in Humboldt's time it apparently was freer from obstruction and more easily traced.

There are two pyramids at Teotihuacan, the largest of which is apparently a square of 645 ft., with a height of 171, and there are others at Tezcucio of about the same dimensions, and, like them, divided into five or seven storeys, but the most interesting of those yet brought to light is that of Xochicalco. It is situated on the top of what appears to be a natural elevation, but which has been fashioned into terraces by art. The pyramid itself is in five storeys, the stone facing of the three upper of which has been removed to repair a sugar-mill in quite recent times, but the two lower still retain their sculptures and architectural ornaments. Mr. Tylor gives the date of 945 to this building,¹ and there does not seem to be any reason for doubting its general correctness. If it is so, the possession of photographs of its bas-reliefs and cornices would go far to clear up half the difficulties which beset the question.² One monument in the middle of the series with sculptural and architectural details, and an authentic date, is nearly all that is required for the purpose.



1015 Pyramid of Oajaca, Tehuantepec. (From the 'Smithsonian Contributions to Knowledge')

Besides these great many-storeyed pyramids there are numerous examples in various parts of the country, of one storey only; several of these have been described, but unfortunately not drawn. Their general arrangement may, however, be judged of from the annexed example from Oajaca.

¹ 'Anahuac,' by Edward B. Tylor, 1861; pp 188, 194

² The plate published by Humboldt,

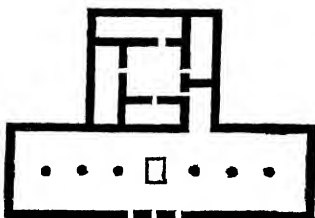
representing one of the bas-reliefs, is so incorrect as to be absolutely worthless.

Like all others in Mexico, it is only a device to raise a temple to such a height as should give it dignity and enable the ceremonies performed on its upper platform to be seen by all the people.

It is indispensably necessary to bear this distinction in mind, in speaking of these monuments, as careless writers, connecting the word Pyramid with Egypt, have been too apt to confound together two classes of monuments entirely distinct and dissimilar. The Egyptian pyramid is always a tomb. The principal object of its erection is in the sepulchral chamber in its centre. It always terminates upwards in a point. In no instance are there external steps leading to a cell or chamber on the apex. In fact, they were always tombs, never temples. The Assyrian pyramids, on the contrary, have much more affinity with the buildings of which we are now speaking. They were always in terraces, the upper platform was always crowned by a chamber or cell, and there were external steps leading to this, which was the principal object of the erection. In investigating the history of Eastern art this form of temple has been traced from Mesopotamia to the shores of the Eastern Ocean. If we still, however, hesitate to pronounce that there was any connection between the builders of the pyramids of Suku and Oajaca, or the temples of Xochicalco and Boro Buddor, we must at least allow that the likeness is startling and difficult to account for on the theory of mere accidental coincidence.

One thing, at all events, seems clear. If we are at any time to trace a connection between the architecture of the New and the Old World it is in the direction above indicated that light is to be looked for. At all events it seems as if it could not now be long before we ascertain whether any connection did exist between the arts of the two continents, or whether we may regard that of America as wholly indigenous.

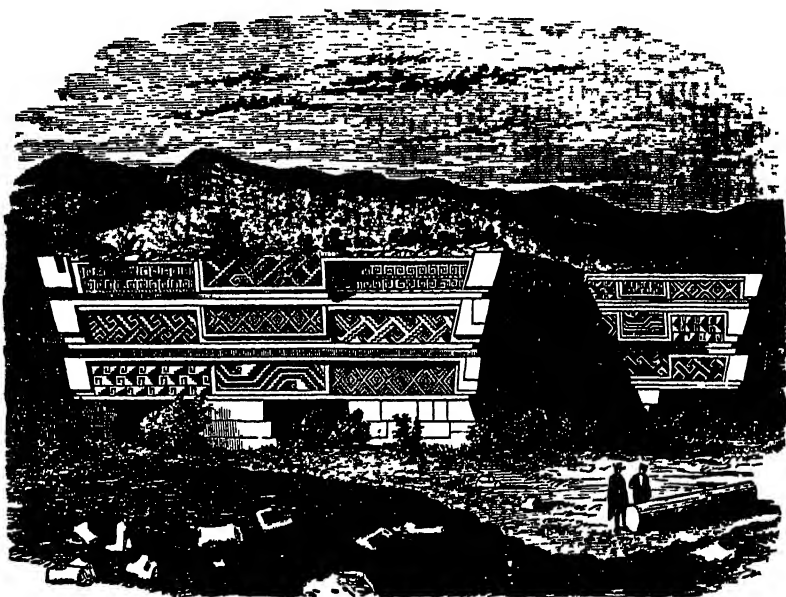
Almost, however, as if to warn us to beware of jumping too rapidly to conclusions of this class, we meet in Mexico occasionally with such a monument as that at Mitla, which is so entirely original as to defy the stoutest advocate to find an associate for it. As will be seen from the annexed plan, it consists of a portico, measuring 160 ft. across, its roof supported by a row of six pillars down the centre, and having behind it a square building, measuring about 65 ft. each way, in the centre of which is a court with four apartments opening into it, the entrances of which are so arranged as to secure the utmost amount of privacy. Originally there appear to have been four such buildings, arranged round a courtyard, but only one is now perfect.



1016. Plan of Temple at Mitla. Scale
100 ft. to 1 in.

If, however, the plan is original, the style of ornamentation is still more so. The walls slope outwards, which is not the case in any other known building. The panels are filled with frets and forms such as are only found in Mexico, and are entirely unlike anything found elsewhere, and the whole building is such, that if it stood alone, or all Mexican buildings were like it, we should at once be obliged to admit that the style was entirely original, and formed without any connection with the older world.

Its use is said to be sepulchral, and there are underground chambers which would countenance that belief, according to our views. In hot climates, however, subterranean apartments are appro-



1017. View of the Palace at Mitla. (From 'Smithsonian Contributions to Knowledge,' vol. ix.)

priate rather to the living, and are, when met with, generally the best in the house; so that, without some more evidence, it would appear rather to be a palace, which the arrangement of its internal chambers and its whole appearance would more certainly indicate. Its age is not known, but in the Aztec paintings executed immediately before, and in some instances subsequently to, the conquest, the same forms and the same style of decoration constantly appear. This is not conclusive, for the same architectural forms may in this country have prevailed throughout, for anything we know; but judging by the rules of European criticism, the building does not date from long before the time of the conquest.

Whenever a stable government is established in that unhappy

country, and the artist and photographer are enabled to pursue their occupations in security and at leisure, it is to be hoped that materials will become available for completing this chapter of our history. At present, it must remain nearly a blank, because so few representations of Mexican monuments exist on which reliance can be placed.¹

YUCATAN.

It is extremely difficult to determine whether it is owing to their original paucity, or to their destruction by the Spaniards, that the monuments in the province of Mexico are now so few and far between. If we may judge from the glowing descriptions of the conquerors, and the analogy of the remains in Yucatan, we may almost certainly ascribe their disappearance to the bigotry or the avarice of the Europeans. Be this as it may, it is certain that the moment we pass the southern boundary of Mexico and enter the peninsula generally known as Yucatan, which for our present purpose must be considered as including Costa Rica, we find a province as rich in architectural remains as any of the same extent in the Old World, not even excepting Cambodia, which is the one it most nearly resembles. In this region Messrs. Stephens and Catherwood visited and described between fifty and sixty old cities; and, if we may trust native reports, there are others in the centre of the land even more important than these, but which have not been visited by any European in modern times. Of the cities described by these travellers, Uxmal, Palenque, Kabah, Chichen Itza, and others, are really magnificent. The first-named almost rivals Ongcor in splendour and extent, though it falls far short of it in the elegance or beauty of detail of its buildings.

As before hinted, there seems no reason for dissenting from the conclusion Messrs. Stephens and Catherwood arrived at regarding their age. It is deliberately expressed by the last-named author in his folio work (page 8) in the following terms.—“I do not think we should be safe in ascribing to any of the monuments which retain their forms a greater age than from 800 to 1000 years, and those which are perfect enough to be delineated I think it is likely are not more than from 400 to 600 years old.” In other words, they belong to the great building epoch of the world—the 13th century, or a little before or after that time.² It seems more than probable, therefore,

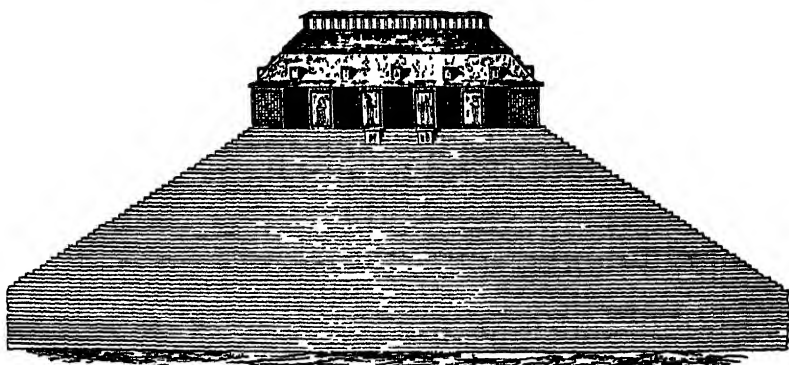
¹ See Appendix, note 21.

² There is a bas-relief at Palenque, representing a man offering a child to an emblem very like a Christian cross. It is represented in the first series of the ‘Incidents of Travel,’ vol. ii. p. 344. None of

the sculptures have given rise to such various interpretations; but nothing would surprise me less than if it turned out to be a native mode of representing a Christian baptism, and was therefore subsequent to the conquest.

that the great buildings at Uxmal are contemporary with the temples of Nakhon Wat and Hullabéal, and the cathedrals of Rhems and Toledo. Whether or not there was any communication direct or indirect between these buildings, which are geographically so remotely distant, is another question, to which no satisfactory answer can be given in the present state of our knowledge, and if any is attempted it must be a negative one.¹

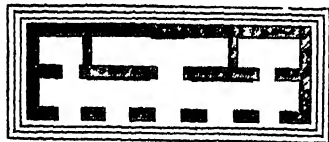
As in Mexico, the principal monument of Yucatan is the *Toocalli*. In the latter province, however, they seem to differ somewhat in



1018.

Elevation of *Toocalli* at Palenque Scale 50 ft. to 1 in

design from those above described. They are not generally in terraces, but rise, at an angle of about 45° , to the level of the platform on which the temple stands; and a magnificent unbroken flight of steps leads from the base of the building to its summit. Almost all these retain more or less of the remains of architectural magnificence that once adorned their summits.



1019 Plan of Temple. Scale 50 ft. to 1 in

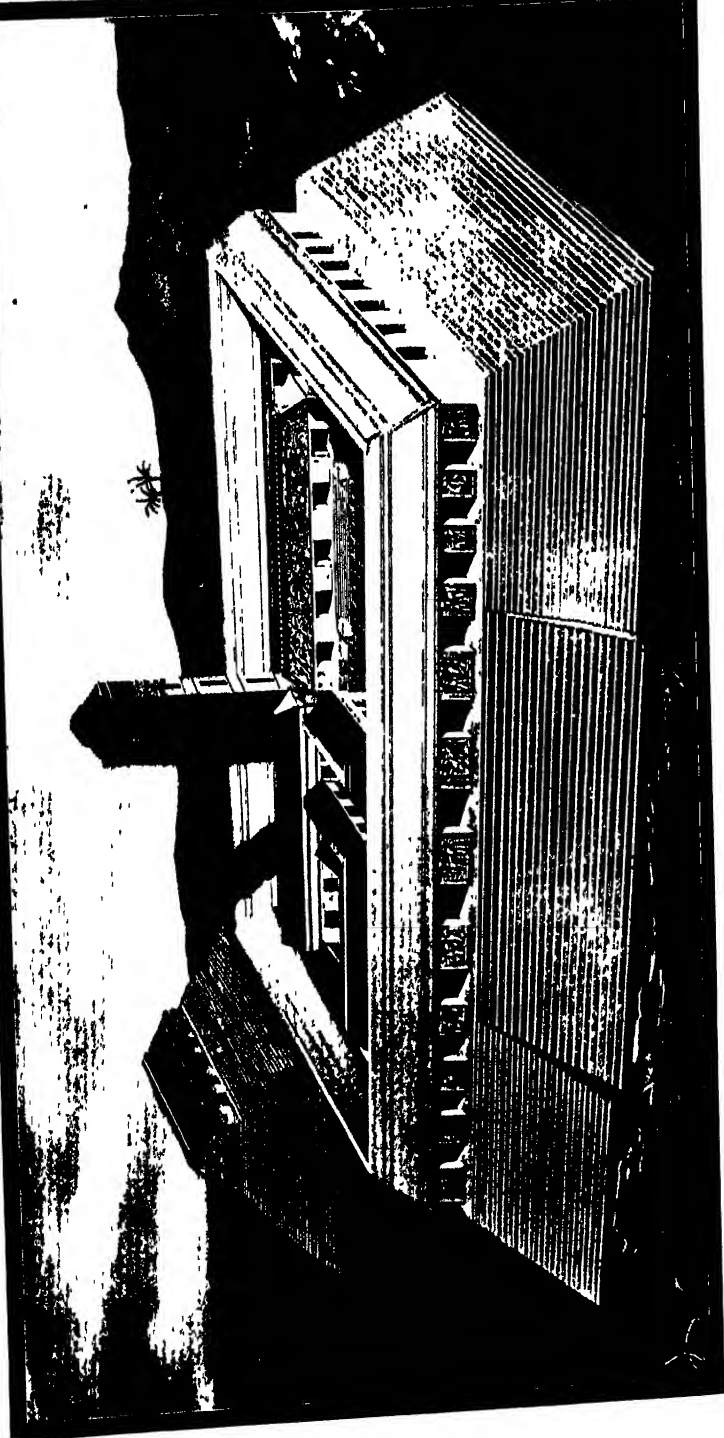
The annexed Woodcut, No. 1018, representing the elevation of a temple at Palenque (the plan of which is shown below), supported by a pyramid, will give a good general idea of their form. The pyramid is about 280 ft. square, and 60 ft. in height: on the top of it stands the temple, 76 ft. wide in front and 25 ft. deep, ornamented in stucco with bassi-relievi of better execution than is usually found in these parts, and with large hieroglyphical

¹ Since the first edition of this work was published, a folio work has appeared in Paris, entitled '*Les Ruines de Palenque*,' illustrated by plates, made under the superintendence of M. de Waldeck, with text by the Abbé Brasseur de Bourbourg. The text is certainly not to be

trusted. The plates add little to what we learn from Catherwood's drawings, and I do not feel sure how far that little is to be depended upon.

In so far as they go they confirm the idea of the famous cross bas-relief being of Christian origin,

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THE TEMPLE OF PALENQUE—RESTORATION



tablets, whose decipherment, were it possible, would probably reveal to us much of the history of these buildings.

The roof is formed by approaching courses of stone meeting at the summit, and following the same outline externally, with curious projections on the outside, like dormer windows, but meant apparently either for ornament or as pedestals for small idols, or for some similar purpose.

The other temples found in Yucatan differ but little from this one, except in size, and, architecturally speaking, are less interesting than the palaces—the splendour of the temple consisting in the size of its pyramid, to which the superstructure is only the crowning member, in the palace, on the other hand, the pyramid is entirely subordinate to the building it supports, forming merely an appropriate and convenient pedestal, just sufficient to give it a proper degree of architectural effect.

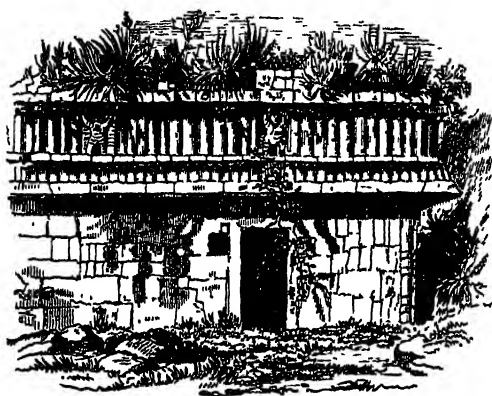
In speaking of the palaces it would be most important, and add very much to the interest of the description, if some classification could be made as to their relative age. The absence of all traces of history makes this extremely difficult, and the only mode that suggests itself is to assume that those buildings which show the greatest similarity to wooden construction in their details are the oldest, and that those in which this peculiarity cannot be traced are the more modern.

This at least is certainly the case in all other countries of the world where timber fit for building purposes can be procured, there men inevitably use the lighter and more easily worked vegetable material long before they venture on the more durable but far more expensive mineral substance, which ultimately supersedes it to so great an extent. Even in Egypt, in the age of the pyramid builders, the ornamental architecture is copied in all its details from wooden constructions. In Greece, when the art reached its second stage, the base is essentially stone, and the upper part only copied in stone from the earlier wooden forms; and so it was apparently in Mexico, the lower part of the buildings is essentially massive stone-work, the upper part is copied from forms and carvings that must originally have been executed in wood, and are now repeated in stone.

The following Woodcut, No. 1020, of Chunjuju, for instance, represents in its simplest form what is repeated in almost all these buildings—a stone basement with square doorways, but without windows, surmounted by a superstructure evidently a direct copy of woodwork, and forming part of the construction of the-roof.

In most cases in Yucatan the superstructure is elaborately carved with masks, scrolls, and carvings similar to those seen on the prows of the war-boats, or in the *Morais* or burying-places of the Polynesian islanders,

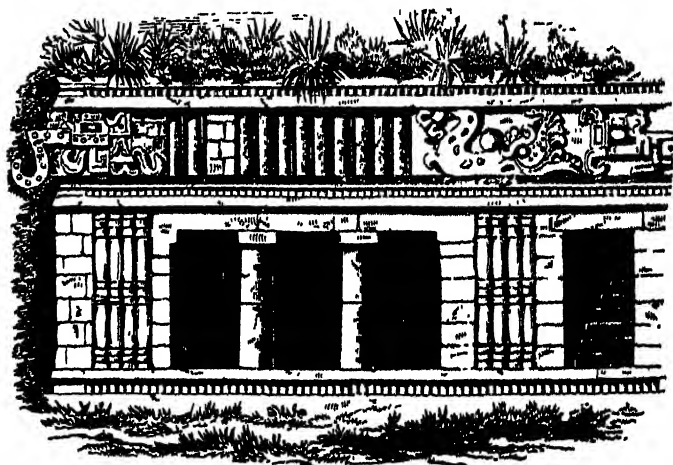
Sometimes pillars are used, and the wooden construction is carried even lower down, though mixed in that case with parts of essentially lithic form. Barring the monstrosity of the carvings, there is often,



1020. Elevation of Building at Chunjuu. (From a Drawing by F. Catherwood.)

as in the palace at Zayi (Woodcut No. 1021), a degree of elegance in the design by no means to be despised, more especially when, as in this instance, the building rises in a pyramidal form in three terraces, the one within and above the other, the lowest, as shown in the plan (Woodcut No. 1022), being 260 ft. in length, by 110 ft.

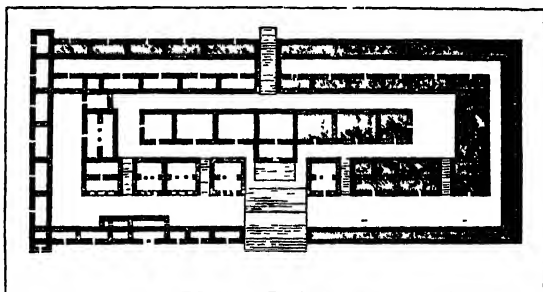
in width. This, though far from being the largest of these palaces, is one of the most remarkable, as its terraces, instead of being mere flights of steps, all present architectural façades, rising one above the other. The upper and central tier may possibly have been a seven-



1021. Elevation of part of Palace at Zayi (From a Drawing by F. Catherwood.)

celled temple, and the lower apartments appropriated to the priests, but it is more probable that they were all palaces, the residences of temporal chiefs, inasmuch as at Uxmal a pyramidal temple is attached to the building called the Casa del Gobernador, which is extremely similar to this, though on a still larger and more ornate scale. There are other instances of the palace and temple standing together.

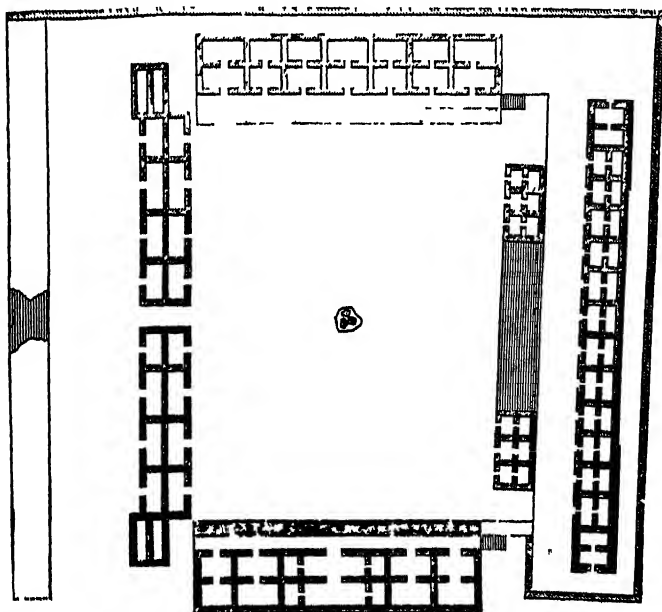
Sometimes, instead of the buildings standing within and above each other, as in the last example, they are arranged around a courtyard, as in that called the Casa de las Monjas at Uxmal (Woodcut No. 1023), one of the most remarkable buildings in Central America, for its size, as well as for the elaborateness of its decorations. It is raised on three low terraces, reaching a total height of 20ft. The block to the south, 260 ft. long, is pierced by a triangular-headed gateway, 10 ft. 8 in. wide, leading to a courtyard, measuring upwards of 200 ft. each way, and surrounded on all sides by buildings, as shown in the plan; which, though only one storey in height, from their size and the



1022.

Plan of Palace at Zayi Scale 100 ft. to 1 in.

10 ft. 8 in. wide, leading to a courtyard, measuring upwards of 200 ft. each way, and surrounded on all sides by buildings, as shown in the plan; which, though only one storey in height, from their size and the



1023.

Casa de las Monjas, Uxmal. Scale 100 ft. to 1 in.

elaborateness of their decorations, form one of the most remarkable groups of buildings in the world.

In the same city is the other building, just referred to, called the Casa del Gobernador, somewhat similar to the principal of the three edifices composing the Casa de las Monjas, but larger and even more

elaborate in its decorations. It stands alone, however, with only a temple attached unsymmetrically to one angle of it.

With regard to construction, as above remarked, the style may be generally characterized as one remove from the original wooden construction of early times. No wooden buildings, or even wooden roofs, now remain, nor could any have been expected to resist the effects of the climate; but many of the lintels of the doorways were formed by wooden beams, and some of these still remain, though most of them have perished, bringing down with them large portions of the walls which were supported by them. In other instances, and generally speaking in those that seem most modern, the upper parts of

the doorways, as well as the roofs of the chambers, are formed by bringing the courses nearer together till they meet in the centre, thus forming a horizontal arch, as it is called, precisely as the Etruscans and all the earlier tribes of Pelasgic race did in Europe at the dawn of civilisation, and as is done in India to this day. This form is well shown in the annexed woodcut, representing a chamber in the Casa de las Monjas at Uxmal, 13 ft. wide. The upper part of the doorway on the right hand has fallen in, from its wooden lintel having decayed.



1024. Interior of a Chamber, Uxmal. (From a Drawing by F. Catherwood.)

A still more remarkable instance of this mode of construction is shown in the Woodcut No. 1025, representing a

room in a temple at Chichen Itza in Yucatan. The room is 19 ft. 8 in. by 12 ft. 9 in.; in the centre of it stand two pillars of stone, supporting beams of sapote-wood, which also forms the lintels of the door, and over these is the stone vaulting of the usual construction: the whole apparently still perfect and entire, though time-worn, and bearing the marks of as great age as any of the other buildings of the place.

When the roof was constructed entirely of wood, it probably partook very much of the same form, the horizontal beam being supported by two struts meeting at the centre, and framed up at the sides, which would at once account for the appearance shown in the Woodcuts Nos. 1020, 1021. It is also probable that both light and air were

introduced above the walls, between the interstices of the wood-work ; which is further confirmed by the strange erection on the top of the Casa at Palenque (Woodcut No 1018), where the openings look very like the copy of a ventilator of some sort



1025. Apartment at Chichen Itza. (From a Drawing by F. Catherwood.)

It is, of course, impossible to ascribe any very remote antiquity to buildings containing so much wood in their construction, and erected in a climate so fatal to the durability of any class of buildings whatever. In addition to this, it must be borne in mind that the bas-reliefs are generally in stucco, which, however good, is still a very perishable material, and also that the painting on these and on the walls is still bright and fresh. In such a climate as that of Egypt no argument could be drawn from these circumstances ; but in a country subject to tropical rains and the heat and dryness of a tropical summer the marvel is that they should have lasted four or five centuries, and still more that they should have resisted so long the very destructive powers of vegetation. Taking all these circumstances together, the epoch of their erection does not seem a matter of doubt, and all that remains for the elucidation of their history is that they should be arranged in a sequence during the six or eight centuries which may have intervened between the erection of the oldest and the most modern of these mysterious monuments.



1026. Diagram of Mexican construction.

CHAPTER III.

PERU.

CONTENTS.

Historical Notice—Titicaca—Tombs—Walls of Cuzco, &c.

CHRONOLOGY.¹

	DATE.
Manco Capac	A.D. 1021
Mayta Capac, 4th Inca, conquers Aymara	1126
Conquest by Pizarro	1534

PERU is situated geographically so near to Mexico, and the inhabitants of both countries had reached so nearly to the same grade of civilisation at the time when the Spaniards first visited them and destroyed their native institutions, that we might naturally expect a very considerable similarity in their modes of building and styles of decoration. Nothing, however, can be further from the fact; indeed it would be difficult to conceive two peoples, however remotely situated from one another, whose styles of art differ so essentially as these two.

The Mexican buildings, as we have just seen, are characterised by the most inordinate exuberance of carving, derived probably, with many of the forms of their architecture, from wooden originals. Peru, on the other hand, is one of the very few countries known where timber appears to have been used in primitive times so sparingly that its traces are hardly discernible in subsequent constructions; and either from inability to devise, or from want of taste for, such a mode of decoration, the sculptured forms are few and insignificant.

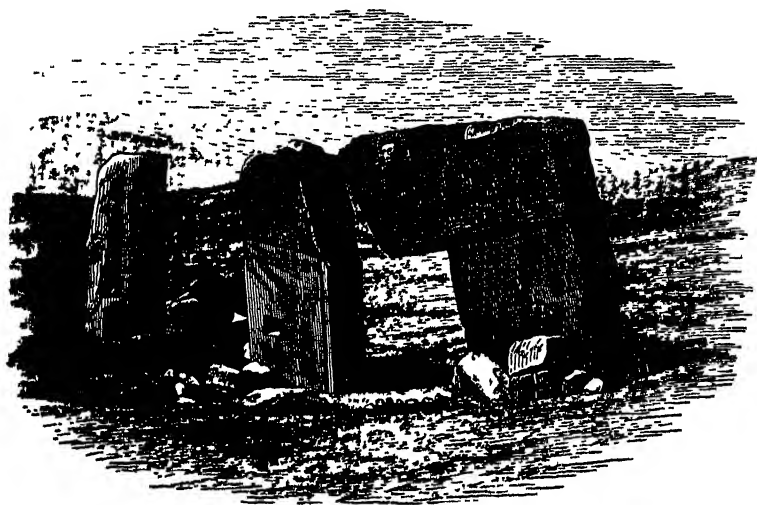
The material which the Peruvians seem to have used earliest was mud, and in that rainless climate many walls of this substance, erected certainly before the Spanish conquest, still remain in a state of very tolerable preservation. The next improvement on this seems to have been a sort of rubble masonry or concrete: the last, a Cyclopean masonry of great beauty and solidity. None of these forms, nor any of their derivatives, are found in Mexico; the climate would not permit of the use of the first—hardly of the second; and in all their buildings, even the earliest, the Mexicans seem to have known how to use stones carefully squared and set with horizontal beds.

Another distinction which Peruvian art has in common with many

¹ Consult the Appendix, note 22.

of those derived from purely stone construction, is the sloping sides of the openings—a form invented on purpose to diminish the necessary size of the lintel. There are two discharging arches so constructed at Uxmal, but, so far as is known, none anywhere else, and no single opening of that class in the whole architectural province of Mexico. The roofs and upper parts of the larger openings, on the contrary, almost universally slope in that country. In Peru the roofs are always flat, or domical, and the sides of the openings always straight-lined.

These remarks ought perhaps, in strictness, to be applied to the architecture of the Incas alone—the only one with which we



1027.

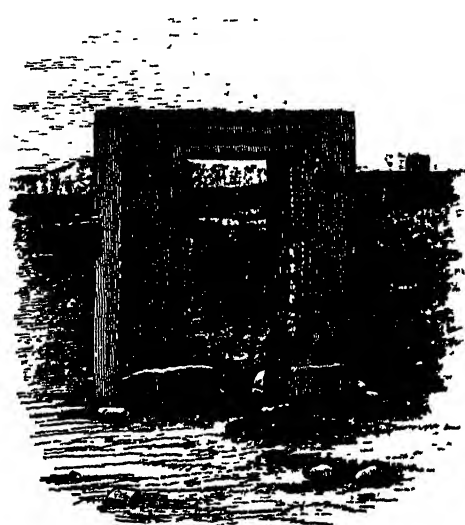
Ruined Gateway at Tia Huanacu. (From a Photograph.)

have hitherto been made acquainted. Recently, however, it has dawned upon us, that before the time of Manco Capac the regions of Peru about the Lake Titicaca were inhabited by a race of Aymaras, who have left traces of their art in this region. Some illustrations of the remains of Tia Huanacu, at the southern end of Lake Titicaca, have reached this country, and from them we gather that the style is essentially different from that of the Incas. The most characteristic distinction being that in the Aymara style all the jambs of the doors are perpendicular, and all the angles right angles. In the Inca style, on the contrary, the jambs are almost all universally sloping, and rectangular forms are by no means common.

At Tia Huanacu there are two doorways, each cut out of a single block of hard volcanic stone. That shown in Woodcut No. 1027 measures 10 ft. in height and 13 ft. 3 in. across the top; or rather did before it was broken in two, apparently by an earthquake shock.

In the centre of it is a mask cut with very considerable skill, and on each side a number of panels containing incised emblematical figures whose purport and meaning have not yet been explained. The other doorway (Woodcut No. 1028) is erect and entire, but perfectly plain. Its only ornaments are square sinkings cut with the admirable precision and clearness characteristic of the style.¹

There is also at Tia Huanaqu a great mound, apparently about 1000 ft. long by 400 in width, but the stone revêtment that gave it form has been removed in modern times, so that its shape is undistinguishable. It was apparently surrounded by a range of monolithic pillars or obelisks like a Ceylonese dagoba, and had a wall of Cyclopean masonry outside



1028. Gateway at Tia Huanaqu. (From a Photograph.)

these. There is also a square marked out by similar pillars, each of a single stone, 18 to 20 ft. in height, but whether originally connected or not cannot now be ascertained. The wonder of the place, however, is a monument of very uncertain destination, called the "Seats of the Judges," consisting of great slabs of stone: there are either three or four, each 36 ft. sq. and 5 ft. thick, at one end of which the seats are carved. Without detailed plans and drawings it is difficult to form any

reliable opinion regarding these remains, but it does seem that the people who executed them had a wonderful power of quarrying and moving masses, and an aspiration after eternity very unlike anything else found in this continent, and the details of their ornamentation neither resemble those of Mexico nor the succeeding style of the Incas.²

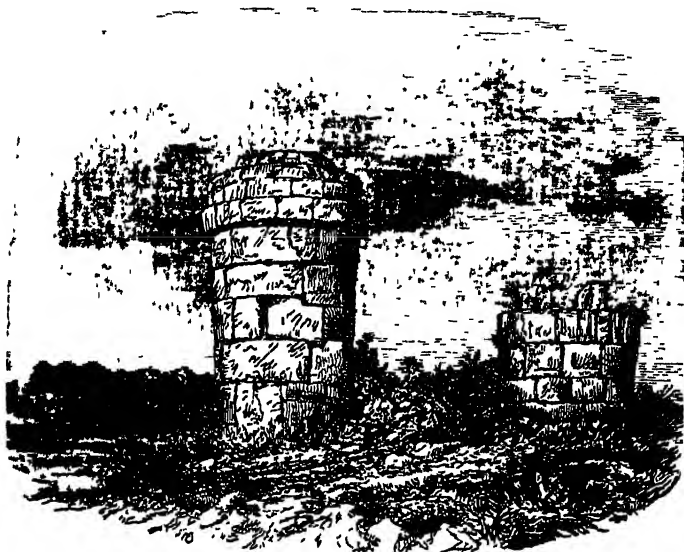
¹ It is only fair to state that Mr. Markham (*Journal Roy. Geo. Soc.*, vol. xli. p. 307) denies the Aymara origin of the Tia Huanaqu ruins, and ascribes them to the Incas, and consequently disputes the distinction pointed out above. The truth seems to be that, until we get more photographs or detailed drawings, all conclusions regarding Peruvian architecture

must be considered as more or less hypothetical.

² For the principal part of this information I am indebted to Mr. William Bollaert and the photographs of the Messrs. Helsby, of Liverpool, and also to a paper on the Aymara Indians, by Dr. David Forbes, communicated to the Ethnological Society of London in June 1870.

In his travels in Peru, Mr. Markham describes several towers as existing at Sillustani (Wopcut No 1039), which he ascribes to the same people. These are certainly sepulchral, and are still filled with bones, which were apparently thrown in by an opening at the top, and rested in a chamber in the centre of the building.

Mr Markham informs us that there are several other monuments of this class in the same district, about which it would be extremely interesting to know more. As there seems little doubt that they are



1029 Tombs at Sillustani. (From a Drawing by Clements Markham, Esq.)

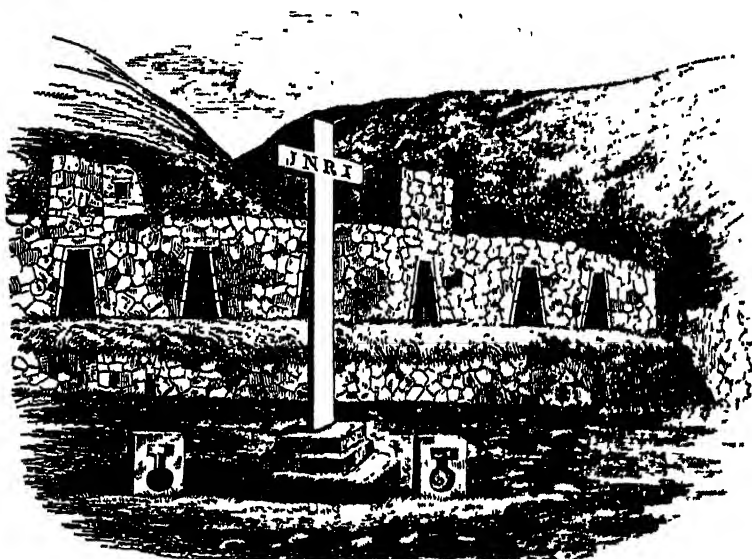
older than the time of the Incas they must modify to a considerable extent any opinion we may form with regard to the origin of their art, though at the same time they add another to the unsolved problems connected with American architecture.

Besides the strongly-marked distinction that exists between the architecture of Mexico and Peru, we have the negative evidence of their history and traditions, which make no mention of any intercourse between the Peruvians and any people to the northward. This, however, is not of much weight, as there are no accounts at all which go farther back than three or four centuries before the Spanish conquest, and our knowledge of who the Aymaras were is still vague in the extreme.

At about that period it is fabled that a godlike man, Manco Capac, appeared, with a divine consort, on an island in the Lake of Titicaca, journeying from whence they taught the rude and uncivilised inhabitants of the country to till the ground, to build houses and towns,

and to live together in communities; and made for them such laws and regulations as were requisite for these purposes

Like the Indian Bacchus, Manco Capac was after his death revered as a god, and his descendants, the Incas, were considered as of divine origin, and worshipped as children of the Sun, which was the great object of Peruvian adoration. At the time of the Spanish conquest the twelfth descendant of Manco Capac was on the throne, but, his father having married as one of his wives a woman of the Indian race, the prestige of the purity of Inca blood was tarnished, and the country was torn by civil wars, which greatly facilitated the progress of the Spaniards in their conquests under the unscrupulous Pizarro.



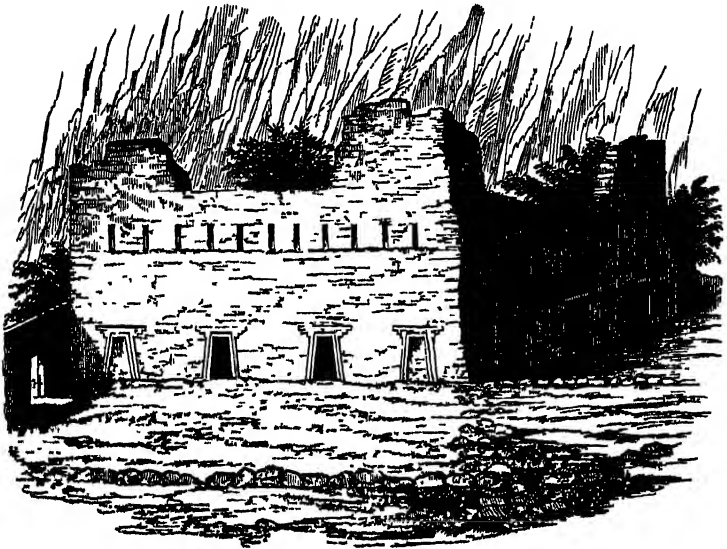
1030. Ruins of House of Manco Capac, in Cuzco. (From a sketch by J. B. Pentland.)

Both from its style and the traditions attached to it, the oldest building of the Incas seems to be that called the house of Manco Capac, on an island in the Lake of Titicaca. The part shown in the woodcut (No. 1030) is curvilinear in form, standing on a low terrace and surmounted by upper chambers, hardly deserving the name of towers. All the doorways have sloping jambs, and the masonry is of rude, irregular polygonal blocks of no great size. Inside the wall are a number of small square chambers, lighted only from the doorway.

A more advanced specimen of building, though inferior in masonry, is the two-storeyed edifice called the House of the Nuns, or of the Virgins of the Sun, in the same place (Woodcut No. 1031). It is nearly square in plan, though with low projecting wings on one side,

and is divided into twelve small square rooms on the ground-floor, and as many similar rooms above them. Several of these chambers were surrounded by others, and those that had no doors externally had no openings like windows (except one with two slits in the upper storey), and they must have been as dark as dungeons, unless the upper ones were lighted from the roof, which is by no means improbable. The most striking architectural features they possess are the doorways, which exactly resemble the Etruscan, both in shape and mode of decoration. We are able in this case to rely upon the accuracy of the representation, so that there can be no doubt of the close similarity.

Another building on the island of Coata, in the sacred lake of



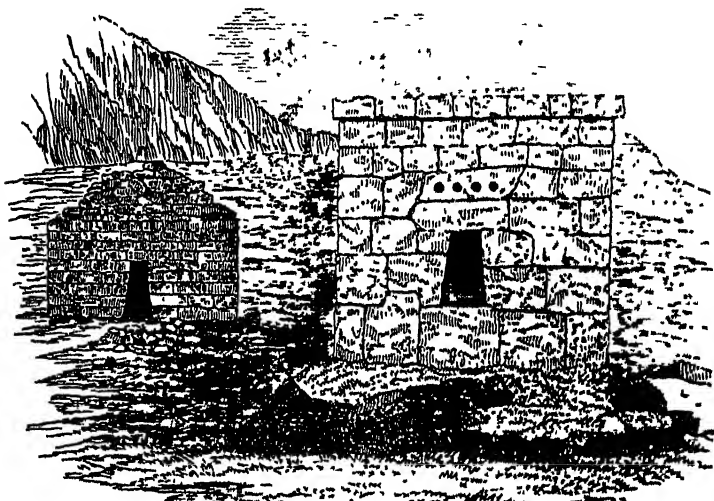
1031. House of the Virgins of the Sun. (From a Sketch by J. B. Pentland.)

Titicaca, is raised on five low terraces, and surrounds three sides of a courtyard, its principal decoration being a range of doorways, some of them false ones, constructed with upright jambs, but contracted at the top by projecting courses of masonry, like inverted stairs—in this instance, however, only imitative, as the building is of rubble.

The masonry of the principal tomb represented in the Woodcut No. 1032 may be taken as a fair specimen of the middle style of masonry; less rude than that of the house of Manco Capac, but less perfect than that of many subsequent examples. It is square in plan—a rare form for a tomb in any part of the world—and flat-roofed. The sepulchral chamber occupies the base, and is covered by a floor, above which is the only opening. The other tomb in the background is likewise square, but differs from the first in being of better masonry,

and having been originally covered, apparently, with a dome-shaped roof either of clay or stucco. Some of these tombs are circular, though the square form seems more common, in those at least which have been noticed by Europeans.

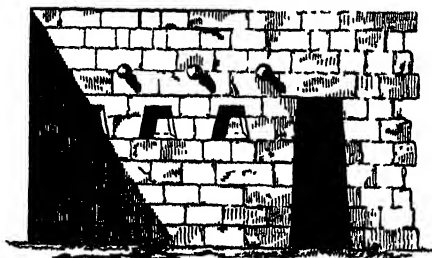
A specimen of the perfected masonry of the Peruvians is repre-



1032.

Peruvian Tombs. (From a Drawing by J. B. Pentland.)

sented in the Woodcut No. 1033. It is a portion of the wall of a Caravanseraï, or *Tambos*, erected by the last Incas on the great road they made from their oldest capital, Cuzco, to Lima. The road was itself perhaps the most extraordinary work of their race, being built of large blocks of hard stone, fitted together with the greatest nicety, and so well constructed as to remain entire to the present day in remote parts where uninjured by the hand of man.

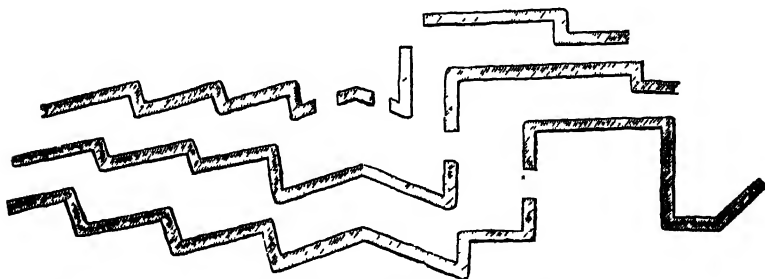


1033. Elevation of Wall of Tambos. (From Humboldt's 'Atlas Pittoresque'.)

visible, except that the stones are slightly convex on their faces, something after the manner of our rustications.

Intermediate between the two extremes just mentioned are the walls of Cuzco, the ancient capital of the kingdom, forming altogether the most remarkable specimen now existing of the masonry of the

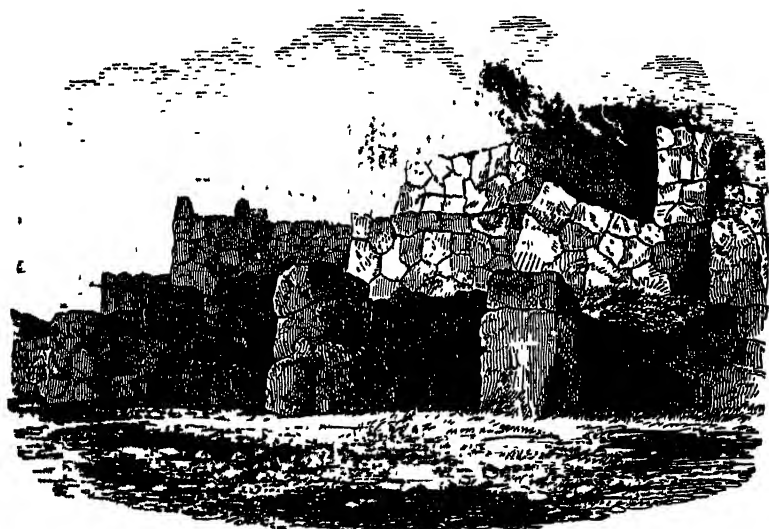
ancient Peruvians They are composed of immense blocks of limestone, of polygonal form, but beautifully fitted together ; some of the stones are 8 and 10 ft in length, by at least half as much in width and depth, and weigh from fifteen to twenty tons, these are piled one over the other in three successive terraces, and, as may be seen



1031.

Sketch Plans of Walls of Cuzco. No scale.

from the plan, are arranged with a degree of skill nowhere else to be met with in any work of fortification anterior to the invention of gunpowder. To use a modern term, it is a fortification *en tenaille* ; the re-entering angles are generally right angles, so contrived that



1035.

View of Walls of Cuzco. (From a Sketch by J. B. Pentland.)

every part is seen, and as perfectly flanked as in the best European fortifications of the present day.

It is not a little singular that this perfection should have been reached by a rude people in Southern America while it escaped the Greeks and Romans, as well as the Mediæval engineers. The true

method of its attainment was never discovered in Europe until it was forced on the attention of military men by the discovery of gunpowder. Here it is used by a people who never had, so far as we know, an external war, but who, nevertheless, have designed the most perfectly planned fortress we know.

Between these various specimens are many more, some less perfect than the walls of Cuzco, showing great irregularity in the form, and a greater admixture of large and small stones, than are there found ; others, in which all the blocks are nearly of the same size, and the angles approach nearly to a right angle. Examples occur of every intermediate gradation between the house of Manco Capac (Woodcut No. 1030) and the Tambos (Woodcut No. 1033), precisely corresponding with the gradual progress of art in Latium, or any European country where the Cyclopean or Pelasgic style of building has been found. So much is this the case, that a series of examples collected by Mr. Pentland from the Peruvian remains might be engraved for a description of Italy, and Dodwell's illustrations of those of Italy would serve equally to illustrate the buildings of South America.

From what has been said above, it seems by no means improbable that at some future time we may be able to trace a connection between the styles of architecture existing in Central America and those on the eastern shores of the Old World ; but, for the present at least, that of Peru must be considered as one of the isolated styles of the world. At the same time it must be confessed that no style offers more tempting baits to those who are inclined to speculate on such a subject. The sloping jambs, the window cornices, the polygonal masonry, and other forms, so closely resemble what is found in the old Pelasgic cities of Greece and Italy, that it is difficult to resist the conclusion that there may be some relation between them. Either, it may be argued, men in certain circumstances do the same things in the same manner, as instinctively as bees or beavers, or by some means or other the arts of the Old World have been transferred to the New. In the present instance, at all events, the latter view can hardly be sustained. The distance of 2000 years in time that elapsed between the erection of the European and American examples is too great to be easily bridged over, and the distance in space is a still more insuperable objection. Even, however, if it were attempted to explain these away, the introduction of the Aymara style is in itself sufficient to settle the question. If that style preceded that of the Incas, as there is every reason to believe it did, it cuts across any such speculations. Its jambs are perpendicular, its angles rigidly rectangular, its surfaces smooth, and it is altogether as unlike the style that succeeded it as can well be conceived. We seem, therefore,

forced to the conclusion that the sloping jambs of Inca architecture are only a natural expedient for shortening the length of the lintel, and their polygonal masonry probably arose from the surfaces of cleavage or fracture, into which certain kinds of stones naturally split

Although, therefore, we are unable, with our present knowledge, to trace the external relation of the Peruvians to the other races of the American continent, there can be no doubt that when her architectural remains are properly investigated, we shall understand her history, and be able to assign to her civilization its proper rank, as compared with that of other nations. Eventually, also, we need not despair of being able to determine whether the gentle subjects of the Incas belonged to the Polynesian, or to which other of the great families of mankind.

When, indeed, we look back on the progress that has been achieved in the last few years, it seems difficult to assign a limit to the extent to which architecture may be employed in investigations of this sort. It was not, of course, even possible to rise to the conception of such a scheme for tracing the affinities of mankind, till the greater part of the world had been explored, and a sufficient amount of knowledge attained to render it certain that no such exceptions existed as would invalidate the general conclusions arrived at. Now, however, that this has been done, and that we are enabled to survey and to group the whole, it may safely be asserted that the great stone book on which men of all countries and all ages have engraved their thoughts, and to which they have committed their highest aspirations, is, of all those of its class now open to us, the most attractive, and for some purposes the most instructive. No one who has followed the inquiry can well doubt that in a few years more, architectural ethnology will take its proper rank as one of the most important adjuncts to all inquiries into the affinities and development of the various families of mankind.¹

¹ Consult the Appendix, note 23.

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APPENDIX.

VOLUME I.

NOTE 1 (to page 23).

Most modern authorities, with the possible exception of some of the English, would hardly agree with the views here expressed in regard to the relative artistic value of the French and English Gothic. That the French were never able to construct a satisfactory vault is a statement which is hardly credible; indeed, it was in this very respect that they excelled their compeers. Compare Volume II, Appendix, note 12.

NOTE 2 (to page 52).

The uncertain character of ethnography at the present time and the changing results of ethnological research render its application to architecture a somewhat hazardous proceeding. The Author's subdivision of the human race into Turanian, Semitic, Celtic and Aryan branches, although it was generally current some fifty years ago, no longer finds acceptance in scientific circles. It is now generally conceded that there was no such universal race as the Turanian, which, according to his hypothesis, occupied Europe, Asia, and possibly America before the advent of other races. On the contrary, the original inhabitants were essentially different races, varying in language, religion, manners, government and arts. The few actual points of resemblance among them which may be discovered are, for the most part, common to earlier civilizations. The generalizations in regard to the other great branches of the human family mentioned in the text are, for the most part, no longer accepted. Take for instance the hypothesis that the Aryan races were anti-artistic. "Wherever the Aryans appear art flies before them." Since it is now generally conceded that the Mycenaean peoples who preceded the Hellenes in Greece were of a stock related to the latter (and not Turanians, as the Author supposes), Greek art must have been an almost pure Aryan product. The truth seems to be that art is even more dependent upon climatic and resulting economic conditions than on racial. Neither the far North nor the torrid South, but rather the temperate zone is conducive to its production. The application of broad ethnographic principles to architecture should therefore be postponed, at least till the science of ethnology rests upon a somewhat surer basis.

NOTE 3 (to page 74).

A statement like the present, that there was no art in Europe where no Celtic blood existed, shows the danger of the wholesale application of ethnology to art. There was certainly no Celtic blood in Greece, which in the Author's estimation attained the most perfect development of art the world

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has yet seen. Neither was there Celtic blood in the nations which produced and developed Byzantine architecture and decoration. Likewise, during the age of the Renaissance, the highest artistic development in Italy took place in the Tuscan cities rather than in Gallia Cisalpina, where the Celts had dwelt. As regards the ethnic position of the Celts, a fuller acquaintance with their language and civilization has definitely established the fact that this race was the vanguard of the Aryan or Indo-European race, as it is now generally called.

NOTE 4 (to page 90).

Recent researches in Egyptian archaeology have overturned the older chronological schemes. That of our Author is based upon the narrative of Manetho, which is now discredited. This narrative only survives in epitomes by Julius Africanus and by Eusebius, and in certain extracts in the works of Josephus; it was at best based upon legendary folk tales. More accurate schemes of Egyptian chronology are based upon the list of kings in the royal papyrus at Turin, the royal tablets, and other inscriptions upon monuments. Manetho's subdivision into dynasties has been retained as embodying a convenient series of groups. The most important recent contribution to the subject is Édouard Meyer's *Ägyptische Chronologie: Königlich preussische Akademie der Wissenschaften* (Berlin, 1904), which is almost final. In English have appeared, among other researches, those of Breasted, *Ancient Records of Egypt*, vols. I-IV (Chicago, 1906), and *History of Egypt* (New York, 1905). In order to enable the reader to fix the dates of the history of Egyptian architecture more accurately, I subjoin a few dates from Breasted's chronology, which does not differ materially from Meyer's.

Egyptian history properly begins with the introduction of the calendar in 4241 B. C. The first dynasty began with the accession of Menes in 3400 B. C. (according to Meyer, 3315). The fourth dynasty of pyramid builders reigned from 2900, in which year Cheops mounted the throne, to 2750. The first Theban kingdom (11th and 12th dynasties) lasted from 2160-1788, the reign of Anemenhat the Third being astronomically fixed at 1849-1801 B. C. (compare dates given in the text, page 118). The New Kingdom lasted from 1580-1090: Thutmosis III reigned 1501-1447, Rameses II 1292-1225.

NOTE 5 (to page 116).

These sphinxes were ascribed to Apophis because his name was cut upon the shoulder of each. A closer inspection of the inscription, however, reveals the fact that they belong to some monarch of the first Theban kingdom, and that Apophis merely usurped them.

NOTE 6 (to page 118).

The title Pharaoh, Egyptian *Per-o*, signifies literally the "Great House," and was applied to all kings of Egypt. There is no particular reason for its special application to this epoch, which is usually called that of the New Kingdom or the Empire (Breasted).

NOTE 7 (to page 118).

Naharin or Naharina, the "land of the rivers," was not the designation of Mesopotamia, but of the country between the Orontes and the Euphrates and beyond, merging into Asia Minor.

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NOTE 8 (to page 119).

This is a harsh criticism of the religion of the ancient Egyptians. Although this is not the proper place for lengthy comparisons, it is only just to say that the latter compared favorably with contemporary religions of the ancient East. A people to whom the hereafter meant so much; who believed in the judgment of the dead, and in the reward of the blessed a thousand years before such doctrines were elsewhere accepted—such a people stood upon as high a religious level as Assyria and Western Asia in general. The morals inculcated by the generally accepted Osiris myth were of a high order, and throughout the religious development of Egypt there was a constant progress toward simplicity and monotheism.

NOTE 9 (to page 122).

The editor can find no further authority for the statement that the chambers about the sanctuary, in the rear of the temples, were ever used for residential purposes. Aside from the fact that their arrangement was not adaptable to such purposes, they were far too small and dark for the residential needs of the Egyptian hierarchy or king. They were probably devoted entirely to ceremonial purposes, and the term Palace-Temple therefore seems inappropriate.

NOTE 10 (to page 140).

It would be more correct to say that the Ptolemaic builders transformed the upper part of the court, or the façade in case there was no court, into a pronaos forming an additional chamber. The hypostyle hall remained as before.

NOTE 11 (to page 151).

The term Chaldean, which the author applies to the entire Babylonian development, applies properly to Kalku, a country to the southeast of Babylonia proper, bordering on the Persian Gulf. At the time in which the Babylonians came in contact with the Jews, the dynasty which ruled the country was Chaldean, which accounts for the adoption of the name in the Scriptures and by succeeding writers. It is more properly applied to this later period, that of the Neo-Babylonian Empire. A more correct terminology would consider as Babylonian all the architecture which flourished in Babylonia from c. 4800 B. C., till the capture of Babylon by Cyrus in 538 B. C. Assyrian architecture, an offshoot of the Babylonian, flourished from the 17th to the 7th century, attaining its highest development in the 9th and 8th centuries. The Neo-Babylonian or Chaldean architecture was a species of Renaissance of the ancient Babylonian under Nebuchadnezzar and his successors in the 6th century. The age of Sargon may be termed the golden, that of Hammurabi the silver era of Babylonian art. See the following note for dates.

NOTE 12 (to page 157).

The following dates will serve to rectify those given in the text:

Before 5000 B. C., city states formed in Southern Babylonia.

3800, Sargon, King of Agade.

3100, Gudea, Patesi of Shurpala.

2297-2254, Hammurabi, King of Babylon.

605-562, Nebuchadnezzar the Great.

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NOTE 13 (to pages 243, 250).

The term Pelagic, which was applied by the Greeks to the aboriginal inhabitants of their country, is, in the light of recent researches, inappropriate as a designation for the art of Mycenæ and Tiryns. For this civilization of the Homeric age was probably preceded by one still more ancient, and the architectural development which the Author treats under this heading is more correctly known by its usual designation, Mycenaean art, from the chief seat of this ancient culture. The beginnings of Hellenic civilization go back to a more ancient period than the halcyon days of Mycenæ. Recent excavations, especially those in the island of Crete, have shown that the ancient Greek legend of the empire of King Minos was founded upon the fact that for more than a millennium the dominion of Crete extended throughout the western Mediterranean, and that Greece was among its tributaries. The beginnings of Cretan civilization can be traced from the Neolithic age, coeval with the pre-dynastic period in Egypt, and its chief development took place between c. 3000 and 1100 B. C., according to the estimate of Evans. The Mycenaean culture of Europe was coeval with the latter part of this period only, and flourished c. 1800-1000 B. C.

The most important of these excavations, which are still being conducted by the British at Gnosso, under the supervision of Mr. Arthur Evans, have laid bare the ruins of a mighty palace, in all probability identical with the Labyrinth of King Minos. It was between five and six acres in extent, and some parts of it were four stories high. It contained broad corridors, spacious courts, open galleries, storerooms for great vases for oil and wine, treasury vaults, and a mighty throne room containing the oldest throne in Europe, all grouped about a great central court. The walls were richly decorated with frescoes showing an excellency not again attained in Hellas until the early fifth century. One of the most astonishing features of this mighty palace was the excellent arrangement of so-called modern conveniences, — bathrooms, latrines and sewers. The excavations of the palace at Phaistos on the opposite side of the island, conducted by the Italian archaeologist, Professor Halbherr, the first of modern archaeologists to systematically explore Crete, revealed a palace rather Mycenaean in character. Very interesting excavations were made under the supervision of Miss Harriet A. Boyd, of Smith College, at the expense of the American Exploration Society of Philadelphia. At Gournia they laid bare a quiet country town of the period, a Cretan Pompeii, as it has been aptly called, the inhabitants of which, judging from existing remains, must have been celebrated for beautiful pottery.

The inhabitants of Crete during this ancient period were a branch of the Mediterranean race, and were kinsmen of the Greeks, if not the same race. As the Mycenæans, whether they followed or were coeval with them, also belonged to the Hellenic stock (and were not Turanian as the Author supposes), Greek art must therefore have been a nearly pure Aryan product. This forms a striking refutation of the Author's theory concerning the inherent hostility of the Aryans to art (pp. 81-83).

NOTE 14 (to page 252).

Recent excavations made at the expense of the Bavarian Academy of Sciences have revealed the fact that this temple is of a later date than the Author supposes. It was constructed c. 500-480 B. C., and was not dedicated to Athena, as has been heretofore assumed, but to a local divinity named Aphaia. Consult Furtwängler, *Agina: Das Heilthum der Aphaia* (Munich, 1906).

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NOTE 15 (to page 257).

The excavations at Mycenæ and Tiryns have brought to light circumstances which tend to overthrow the theory of the foreign origin of the Greek orders. The columns of the tomb of Atreus (fig. 125, p. 244) contain all the elements of the later Doric order. Although the shaft tapers downward instead of upward, as in the Doric order, this circumstance is explained by the influence of a wooden model. The necessity for the change to an upward taper in stone architecture is apparent.

The theory of a native origin of the Doric order seems the more reasonable as all the elements of the later Greek temple are to be found in the Mycenaean house. (See Appendix, note 17.) The isolated use of the so-called proto-Doric columns in the rockcut tombs of Egypt, and in them only, seems therefore a mere coincidence. It also seems likely that the Ionic order originated among those peoples by whom it was afterwards most highly developed, the Greeks of Asia Minor. The two earliest examples of an Ionic capital, those from Ephesus and Naucratis, antedate by seventy years the columns of the great hall of Persepolis (485 B.C.), their supposed models. The Corinthian order developed later than the others, and is in Greek art a development of the Ionic, which can hardly be called an independent order.

NOTE 16 (to page 267).

It is erroneous to suppose that the Corinthian order was not used in the larger buildings and temples by the Greeks. The Tholos of Epidauros was in this style, and Corinthian capitals which undoubtedly supported the roofs of temples have been found in Asia Minor at Euromus (near Yakli), Ancyra and Sagalassus. Although Cossutius, the architect of Antiochus IV. Epiphanes, who designed the temple of Zeus Olympius (B.C. 174), was a Roman citizen, its capitals are of Greek workmanship, Hellenic rather than Roman examples. The six taken by Sulla B.C. 82 to Rome became models of the most usual Roman type of the order.

NOTE 17 (to page 269).

The prototype of the Greek temple is not to be found in the Egyptian, the columnar architecture of which is internal, whereas that of the Greek temple is external. The researches of Dörpfeld and of Perrot and Chipiez have shown that the Mycenaean house contains all the essential elements of the Greek temple. It consisted of a rectangular room, the entrance of which was a vestibule or portico formed by a prolongation of the side wall, the roof of which was often supported by pilastres or columns. This seems certainly the prototype of a templum in antis, from which other forms of the Greek temple were evolved.

NOTE 18 (to page 279).

Similar to the temples and standing within the sacred enclosure were the so-called treasuries of the different Greek cities. They were built by the cities which took part in the national games held at Olympia, Delphi, Delos and other centres of Greek life, and were intended for the reception of the offerings, arms and other properties of their builders. The largest of such treasuries was that of Gela, uncovered by the German excavations at Olympia, the chamber of which measured 42 by 35 feet. A number have been recently exhumed by the French at Delphi. Especially remarkable was the treasury of the Syphnians with beautiful, highly colored sculptural decorations; that

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of the Athenians also with fine sculpture, and that of the Cnicians (c. 530 B. C.) represented in our illustration after a plaster restoration now in the Louvre. Mention should also be made of circular votive buildings within the sacred walls of the temple enclosure, such as the Philippeion, erected by Philip of Macedon at Olympia (c. 336 B. C.), and the Tholos of Epidauros attributed to Polyclitus the younger, about the end of the fourth century.

NOTE 19 (to page 281).

Among the invaluable results of the excavations conducted at Delphi by the French School of Athens was the discovery of a theatre within the temple enclosure, which is one of the most beautiful specimens extant. A description of all the monuments discovered will be found in the *Fouilles de Delphes* by M. Homolle, under whose supervision the excavations were made, the plates of which appeared in 1902, the text being still in course of publication.

NOTE 20 (to page 303).

Although it is undoubtedly true that the chief architectural activity of Rome occurred during the imperial period, the Republic was by no means so devoid of monuments or magnificence as the Author seems to think. Especially since the second century B. C., the increased intercourse with Greece had strongly influenced Roman architecture. The temple of Concord dated from B. C. 366, and the original temple of Castor and Pollux was supposed to have been built even earlier, B. C. 496, its renovation having taken place in B. C. 117. The temple of Jupiter Capitolinus was built under the Republic by Sulla, and in the Tabularium, perhaps the finest monument built under the Republic, the Romans had already learned to combine the native arcades with Greek orders. Among the basilicas, the Porcia, Aemilia, Semproniana, and the Opimia dated from the republican period. Certainly there were fewer imposing monuments of civic greatness than the aqueducts which dotted the Roman Campagna, and which were nearly all built under the Republic.

NOTE 21 (to page 312).

A more likely theory, in the Editor's opinion, is the one which discovers in the composite order an evolution of the Ionic, designed to give it a richer effect. The traces of the evolution are found in the earliest known example of the Ionic capital (c. 550 B. C.), — that of the temple of Apollo at Naucratis, which possesses a netting with anthemion foliage. The perfection of this feature is to be found in the capitals of the Erechtheum, and the transition from this to the Corinthian in Hellenic lands is easy to conceive. The temple of Zeus at Aizani (Phrygia), a Greek work of the first century B. C., possesses an actual Composite capital, — a row of acanthus leaves with volutes above.

NOTE 22 (to page 321).

The Author's measurements of the dome of the Pantheon are somewhat higher than those usually given. The height and the diameter of the dome are now generally assumed to be equal, or nearly so, and the measurement is estimated at 142 feet, or 142 feet 6 inches.

NOTE 23 (to page 346).

The Author's opinion, that bad taste was inseparable from everything Roman, which the reader before this has undoubtedly had occasion to notice,

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is an individual one, not shared by most scholars and architects of the present day. Although the Romans were inferior to the Greeks in good taste, particularly as regards decoration, to which the Author here refers, they nevertheless achieved excellent and tasteful results. Their monuments of the best period, had more survived, would probably have satisfied the most fastidious of modern critics.

NOTE 24 (to page 359).

Most scholars are of the opinion that the building here referred to was the Nymphæum of the Licinian guards. The Emperor Gallienus, by whom these gardens were built, belonged to the Licinian family.

NOTE 25 (to page 412).

The present tendency in Germany is to discriminate very sharply between the Early Christian, Byzantine, Romanesque, and Gothic styles. In no reputable treatise of the present day would these Rhemish cathedrals be classed as anything else but Romanesque.

NOTE 26 (to page 422)

The full title of De Vogüé's excellent work, to which the Author so frequently refers, is *La Syrie Centrale: architecture civile et religieuse* (Paris, 1866-1877). The latest treatise upon the subject, the result of an American archaeological expedition to Syria in 1899-1900, is one of the publications of this expedition, *Architecture and Other Arts* (New York, 1903), by Howard Crosby Butler.

NOTE 27 (to page 440).

A highly interesting monograph in English upon the church, is by Lethaby and Swanson, *The Church of Sancta Sophia* (New York, 1894).

NOTE 28 (to page 459).

A partial result of their labors has been published in a highly interesting folio: Barnesley and Schultz, *The Monastery of St Luke of Stiris* (London, 1901).

NOTE 29 (to page 507).

This is the proper place to note the theory of the origin of the Christian basilica in the atrium of the Roman house, carefully elaborated by Dehio and von Bezold, *Die christliche Baukunst des Abendlandes* (Stuttgart, 1892), I, 62-79. According to this theory the most usual place of assembly of early Christians was the atrium of the house of some wealthy member, the forms of which they naturally imitated when they had opportunity to build houses of public worship. The atrium contains in germ all the essential features of the basilica: the *cavadium* with its row of columns being the nave and aisles, the *alæ* the transepts, the *tablinum* the apse, and the table within, upon which the household gods stood, the altar. They also show the development of the roof of the basilica from such a covering over the atrium, as used in more northerly climes. Their argument, however, is not altogether convincing, and Fergusson's theory, that the more probable origin of the Christian basilica is to be found in the Roman public basilica, may be said still to hold good.

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NOTE 30 (to page 515).

The Editor has taken the liberty of reducing the names in this table to the consistent English or Italian forms, by which they are usually known. The original list seemed to commingle, without apparent reason, English, Italian and French forms.

NOTE 31 (to page 558).

There is no evidence to show that the path of the Teutonic tribes, except the southernmost, who settled in Germany was up the valley of the Danube and thence down the Rhine. It lay further north, and their migration was, generally speaking, from regions to the east of their ultimate habitation. The seats which they held in Cæsar's time were not materially changed during the centuries that followed. In course of their struggles with the Romans and as a result, also, of internal conflicts, they formed larger confederations. During the latter half of the fifth century the Alemanni lived along the Rhine, from the Main to the Alps, and as far east as the Lech, further down the river were the Burgundians with their capital at Worms, and the Riparian Franks with Cologne as a capital, the Salian Franks dwelt along the estuaries of the river. The seats of the Saxons extended from the Elbe almost to the Rhine; those of the Thuringians were to the east of the Franks and Saxons, and the Bavarians were south of the Danube, to the east of the Alemanni.

NOTE 32 (to page 582).

Although the term Byzanto-Romanesque is a correct designation for the architecture of Southern Italy, it is hardly so for the Romanesque of Tuscany. The circumstance that the Byzantine Emperor contributed treasure for the construction of the cathedral at Pisa does not necessarily prove that the Byzantium exercised an artistic influence upon Tuscany. The use of marble incrustation, which has been urged as a proof of Byzantine influence, seems to us rather a feature dependent upon local conditions; for there was an abundance of colored marble in Tuscany.

The chief inspiration of this style (in the churches of Florence, for example) seems rather antique than Byzantine art. Apart from this, the Romanesque of Tuscany has other features, like the external use of arcades, which differentiate it from the remaining Romanesque styles. There is a little integral difference between the styles of Southern Italy and Sicily, the only question being one of preponderance of Saracenic, Greek or Romanesque elements. Contrary to the usual custom, the Author has treated these styles in entirely different sections of his work.

To the Editor it seems that the Romanesque style of architecture in Italy is best subdivided into the following branches:

- (1) The Lombard Romanesque of Northern Italy.
- (2) The Tuscan Romanesque, with chief centres at Pisa and Florence. Its influence extended throughout Central Italy (except Rome), and into Southern Italy and Dalmatia.
- (3) The Venetian Romanesque, with marked Byzantine influence, but also with Lombard features.
- (4) The mixed style of Southern Italy and Sicily.

NOTE 33 (to page 608).

It seems rather farfetched to identify the existence of Gothic architecture in Italy with the prevalence of the Ghibelline faction there. Guelfic Florence

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and Orvieto as well as Ghibelline, Siena and Milan, built cathedrals in this style. Nor is it quite correct to state that the latter party represented local independence in Italy. On the contrary, it was the Guelfic party which, in alliance with the Pope, won the great struggle against the attempt of the Hohenstaufen emperors to weld Italy into a compact homogeneous kingdom.

NOTE 34 (to pages 616, 626)

Recent research upon the cathedrals of Florence and Milan necessitates a revision of the Author's account of the history of these edifices. According to Villani, a contemporary, the building of the former was decided upon in 1294, and a reliable inscription recorded by Vasari recites that the foundation stone was not laid until 1296. The necrology of the cathedral distinctly states that Arnolfo, under whom the work was begun, died on March 8, 1302, not in 1310, as was formerly supposed. At the time of his death the ground plan had been laid out, the inner wall of the façade was completed, and two arcades of the side walls next to the façade had probably been erected. From then until 1331 little work upon the cathedral was accomplished. In the last named year the Guild of Wool undertook to finance the construction, and new resources speedily became available. In 1334 Giotto, by virtue of his appointment by the Signoria as chief architect of all the public works of Florence, took charge of the construction of the cathedral, which he carried on until his death, January 8, 1337. It is not certain, as has been frequently supposed, that he designed the incrustation of the two arcades above mentioned; his attention was chiefly devoted to the Campanile which, indeed, remained the object of attention until its completion in 1557. In 1555 work was resumed upon the cathedral: Francesco Talenti received a commission for a plan of the chapels of the tribune, and for changes in the window of the nave, and in 1357 the authorities accepted his plan for a much enlarged church, the proportions of which correspond to the present edifice. During the following years he and Francesco Giovanni di Lapo figure as the chief architects. The final model for the cathedral was submitted in 1367 by a commission of eight artists and architects. The nave was completed in 1378, the piers supporting the cupola in 1380, the great arches were constructed from 1397-1400, and the semi-cupolas of the tribunes were finished in 1421; in the meanwhile the drum under the cupola had been constructed. The construction of the cupola itself, under the genial guidance of Brunelleschi has often been described. Recent researches, based upon documents published by Guasti and Frey, assign to Lorenzo Ghiberti a more important share in the work (1421-1434), than other modern authorities, following the statements of Vasari, have hitherto supposed. Frey and Wenz consider him equally responsible with Brunelleschi for the design and the solution of the problem of construction, although it is conceded that the practical supervision of the work was conducted by the latter. Consult the monographs entitled, *Santa Maria del Fiore* by Guasti and Cavalluci, both published at Florence (1887); Wenz, *Die Kuppel des Domes Santa Maria del Fiore* (Berlin dissertation, 1901).

The cathedral of Milan was not begun until 1386, in which year the archbishop granted indulgences to all those who should aid in the work; the Duke's proclamation followed that of the archbishop. The first architects mentioned are Martino Campione and Simone d' Orsegnigo in 1387. The first foreign master, Nicolas Bonneaventure, was summoned from Paris in 1389 to be chief architect of the cathedral. The three beautiful windows in the choir were built in accordance with his designs. The plans of the foreign architects, however, were always submitted to a commission of Italian architects and engineers, — a proceeding which resulted in interminable delays, and in the speedy departure of the architects. In 1391 Heinrich

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von Gmund was summoned from Germany to conduct the work, but he also departed. Although his design was much commended, it is erroneous to suppose that he designed the cathedral in its final form. In 1394 Ulrich von Ensingen, the architect of Ulm Münster, was summoned, and in 1399 Jean Mignot came from Paris. Among the architects mentioned in the following century was Johann Nexempeiger (1486) and Bramante, who was consulted, 1488-1490. There is certainly no foundation for the Author's statement that Brunelleschi built the cupola. A new model was constructed in 1492 by Omodeo di Pavia, and Doleebuone of Milan, assisted by the Siennese master, Francesco di Giorgio. In the latter part of the sixteenth century the interior of the cathedral was much damaged by the removal of the tombs of the dukes of Milan to make place for the Baroque side altars of Pellegrino Tibaldi, whose design for the façade was completed by order of Napoleon in 1513. In a competition held in 1891 for the erection of a suitable Gothic façade the prize was awarded to Brentano, a Milanese architect. For the history of the cathedral consult the excellent monograph by Boito (Milan, 1889), for illustrations, the folios of Ghislandi (*ib.*, no date); Romussi (Milan, 1902).

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NOTE 1 (to page 7).

The publications from the archives of the cathedral of Florence, especially those in the work of Guasti (see Volume I, Appendix, note 34), show conclusively that the Campanile was by no means completed at the time of Giotto's death. Hardly more than the first story, the sculptures of which were carved after Giotto's designs by Andrea Pisano, could have been finished. He was succeeded in 1336 by Andrea Pisano, who was deprived of his position and followed, probably in 1349, by Francesco Talenti. Owing to internal dissensions and external misfortunes little work was done upon the Campanile between 1340 and 1350; but by 1357 most of the incrustation was finished. The roof was not added until 1387. It is impossible to say just how far the designs of Giotto were followed in the tower (above the first story) as it now stands. Consult the works upon the cathedral of Florence cited in the previous note and Runge, *Der Glockenthurm von Florenz* (Berlin, 1853).

NOTE 2 (to page 36, 37).

The church of St. Anne, now thoroughly renovated, serves as a place of worship for the French Catholics in Jerusalem. That of Abu Gôsh is likewise in possession of the French government and is used for religious purposes.

NOTE 3 (to page 57).

Stained glasses are rather an incident than the principal motive of the Gothic style. Being pre-eminently a constructive system, the chief motive of the Gothic is to be found in the concentration of strains upon the piers, made possible by the use of groined vaulting and the pointed arch. The addition of the flying buttress made possible a still greater strength of the supports, with the result that the merest shells of walls were sufficient. In consequence of this, the size of the windows increased and the use of stained glasses reached its highest point in the history of architecture.

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NOTE 4 (to pages 48, 66).

There is no reason to suppose that the interior of St. Front was ever decorated with mural paintings, in fact, judging from the finish of the interior, this would have been possible only in the cupola. What the original architect of this marvelous building aimed at was not so much polychromatic effect as what the Germans call *Raumkunst*, that is to say, beauty and subtlety of proportion, and in this he certainly succeeded to the highest extent. The scholarly researches of R. P. Spiers confirm Fergusson's suppositions that the present church was built after the conflagration of 1120 (*Journal of the Royal Society of British Architects*, 3d series, vol. III, 1896). He shows that it was not mutated from St. Mark's, except in plan, and that the domes, built in a manner peculiar to southern France, were in no sense Byzantine. Consult also Berthelot, in *Revue de l'art chrétienne*, 4th series, vol. VI (1895).

NOTE 5 (to page 73).

Of considerable probability, although it cannot be said that it has been established, is the theory of Dehio and von Bezold, that the origin of the chevet dates from Carolingian times. A semicircular apse terminating in a cluster of apsidioles is a feature not uncommon in the Romanesque of northern France, especially in churches modeled after St. Remi at Rheims. The burial place of the saint was in the apse of the church, and in order to provide niches for the sarcophagi of the distinguished persons who wished to be interred under the same roof, a series of apsidioles was added. These soon developed into chapels, which increased in size with the desire to obtain more room for the clergy. Consult Dehio and von Bezold, *Die kirchliche Baukunst des Abendlandes*, I, 261-270 to 86-96, von Bezold, *Centralblatt der Bauverwaltung*, 1886; Dehio, *Repertorium für Kunstwissenschaft*, 1893.

NOTE 6 (to page 110).

According to the system of nomenclature now generally adopted, the Norman style of architecture cannot properly be called Gothic, but constitutes a variety of the Romanesque. It belongs chronologically in the Romanesque epoch, and has all of the characteristics of the Romanesque style, such as the dependence upon the solidity of the walls for the support of the vault, and the consistent use of the round arch.

NOTE 7 (to page 212).

The history of architecture from Charles the Great to the introduction of the Gothic, known in Germany as the Romanesque epoch, has been ably treated by Otto, *Geschichte der romanischen Baukunst in Deutschland* (Leipzig, 1874). Along with Gothic architecture it is admirably described by Dohme, *Geschichte der deutschen Baukunst* (Berlin, 1887), and by Dehio and von Bezold, *Kirchliche Baukunst des Abendlandes*, frequently cited above; the latter work contains excellent illustrations in separate folios. For illustrations see also Möller, *Denkmäler der deutschen Baukunst*, 2 vols. (Leipzig, 1821-1836); E. Förster, same title (12 vols., Leipzig, 1853-1869).

NOTE 8 (to page 220).

From a miniature of the eleventh century, representing the old cathedral of Cologne (1814-1873), as well as from descriptions, it is certain that this church was a double-apsed basilica. Compare the restoration by Essenwein, in *Handbuch der Architecture*, part II, *Die Baustile*, vol. III, p. 135.

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NOTE 9 (to page 246).

This seems the proper place to supply an important item of information not mentioned in the text. that in connection with the late Romanesque architecture in Germany there occurred a very remarkable development of decorative sculpture. Although the churches were not adorned with such forests of statues as were lavished upon the French cathedrals, the figures were equally monumental, presenting a rare combination of naturalistic truth with calm, idealistic dignity. The seat of this development was the ancient duchy of Saxony, especially the southern provinces, and also in the neighboring Franconia. Among its most celebrated monuments are the pulpit and the crucifixion group in the cathedral of Weichselburg, the golden portal of the cathedral at Freiberg, and the beautiful statues of the founders and of religious personalities in the cathedrals of Naumberg and Bamberg. This development took place in the thirteenth century, the most celebrated monuments dating from the middle and latter half.

NOTE 10 (to page 247).

Although no satisfactory monograph of this great church has as yet appeared, the following works contribute somewhat to supply this want. Consult Deboy, *Die Münsterkirche von Aachen und ihre Wiederherstellung* (Aix-la-Chapelle, 1851); Bock, *Karl des Grossen Pfalzcapelle und ihre Kunstschätze* (ib., 1866-1867).

NOTE 11 (to page 255).

The porch of the monastery of Lorsch has for years been used as a chapel and is known as the Michaelskapelle. A restoration of the ancient Romanesque basilica, which is now used as a storeroom, has long been advocated. Consult Adamy, *Die fränkische Thorhalle und Klosterkirche zu Lorsch* (Darmstadt, 1891).

NOTE 12 (to pages 301, 335).

It would seem that the importance and the general adoption of Gothic architecture in Germany are rather underestimated in the text. Take, for example, the supposed deficiency in civil and domestic architecture in the pointed style. While Germany did not produce townhalls comparable to the fine cloth and guildhalls of Flanders (as indeed did no other European country), she was by no means as deficient in civil and domestic architecture as the Author's narrative indicates. One need only recall Castle Marienburg, with its splendid complex of civil and domestic buildings; the castles of Marienwerder and Heilsberg in East Prussia, Karlstein in Bohemia, and the Albrechtsburg at Meissen, the city gates at Basel, Lübeck, and other German places. The Gothic townhalls of Germany compare favorably with those of other European countries; for example, those of Ratisbon, Münster, Hildesheim, Halberstadt, Lübeck and the Artushof at Dantzic. Numerous dwelling houses scattered throughout the ancient German cities show that the Gothic forms were not only adopted but lingered longer in Germany than elsewhere. Nuremberg and Rothenburg on the Tauber, Hildesheim, Lübeck and other North German cities contain numerous examples.

Similarly, the narrative would seem, at least to the American reader, to place an undue emphasis on the English architectural development. Consider, for example, the statement that "during the Middle Ages architecture was practised in England with even greater success than among any of the

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contemporary nations," and that "in beauty of detail and elegance of proportion the English cathedrals surpassed their rivals" Without detracting from the importance and beauty of the English cathedrals and churches, to American editor it seems that these statements go too far. It could hardly be maintained, for example, that the Anglo-Norman style surpassed or even equalled the Tuscan Romanesque in beauty of detail or elegance of proportion. It is a question whether the decorative achievements of the English Gothic surpass the French, they certainly did not produce such sculptures as those of the portals of the Rheims and other French cathedrals, and the painted glasses of the latter equalled those in England. From a structural point of view the English-Gothic is admittedly inferior to the French.

NOTE 13 (to page 345).

Although certain advantages are undoubtedly obtained by the treatment of English Mediæval architecture as a whole, it must not be forgotten by the reader that it is composed of two very distinct styles. The Norman style, the system of which depended mainly upon the strength and solidity of the walls, was a branch of the Romanesque, and it should be sharply distinguished from the styles which followed. Their system was pre-eminently a constructive one, dependent upon the strength of its piers and buttresses, and they are best classified together as the English Gothic, forming a variety of the same great style that dominated Europe during this epoch.

NOTE 14 (to page 462).

The danger of drawing ethnological conclusions from the architectural development of a nation is shown by the Author's statement, deducted from the architectural development of Spain, that the Celtic element was lacking in the Spanish character. As a matter of fact, the greater part of the population before the Roman conquest was composed of the Celiberi, a mixed race of Celts and Iberians, who inhabited the western and central districts, and the north coast, and the pure Celtic tribes which occupied the northwest. The pure Iberians were restricted to the Pyrenees and the eastern coast.

NOTE 15 (to page 464).

The grand scale upon which this work was undertaken prevented its completion, by reason of the great expense incurred. Between the years 1859 and 1881, eighty-nine numbers were published in large folio, adorned with every perfection of the printer's art and reproductive processes. Had the series been finished in the manner proposed, it is perhaps not too much to say that no nation would have possessed its equal. Unfortunately, the principles upon which it was carried out presupposed the completion of the series; so that none of the great cathedrals can be exhaustively studied from its plates. See the Author's criticism, p. 541, note 1.

NOTE 16 (to page 491).

There is an extended history and description, although without satisfactory illustrations, of the cathedral of Seville in the second volume of *Sevilla monumental y artistica*, by José Gestoso y Perez, 3 vols. (Seville, 1890-1891).

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NOTE 17 (to page 511).

The literature upon Portuguese architecture is not extensive. The only available general works are Raczyński, *Les arts en Portugal* (1841), Vilhena arbosa, *Monuments de Portugal* (Lisbon, 1886). The monastery of Batalha has been treated by Murphy (1795), and de Condeixa (1893); that of Belem y Haupt (1898).

NOTE 18 (to page 514).

There is little reason to believe that the Mohannmedan conquest of Egypt was facilitated by the presence of an extensive Arabic population there. No record exists of their immigration under Roman or Byzantine supremacy, and had there been such a movement the immigrants would have been speedily absorbed, as were the Semites, Lybians, Greeks and Romans before them; for few nations possessed such powers of assimilation as Egypt. The easy conquest of the country and its adoption of Mohannmedan doctrines were chiefly due to the alliance of the conquerors with the dominant Monophysitic sect, which welcomed them as deliverers from Byzantine persecution.

NOTE 19 (to page 583).

The early accounts of the history of the Mexican peoples are hopelessly legendary, and more recent research necessitates a modification of the dates given in the text. The following chronological list corresponds more nearly with the results of recent research:

- 720 A. D., probable beginning of the Toltec migration from the north.
- 970, arrival of the Toltecs in Anahuac.
- 1103, overthrow of the Toltec power by the Chichimecs. The Toltecs migrate to Yucatan and Guatemala. Centre of the Chichimeca power at Texcoco.
- Early twelfth century, appearance of first Nahuatl tribes in northern Anahuac.
- 1325, Nahuatl Aztecs found the city of Mexico.
- 1375, beginning of Aztec domination in the valley of Mexico.
- Fifteenth century, extension of the Aztec power throughout Mexico, into Guatemala and Yucatan.
- 1502, accession of Montezuma II.
- 1519, arrival of Cortez.

NOTE 20 (to page 589).

In classifying Mexico, which on this side of the water is considered as belonging to North America, as a part of Central America, the author uses a distinctly British nomenclature.

NOTE 21 (to page 593).

The problems of ancient American archaeology, particularly such as belong to the domain of architecture, have as yet by no means been satisfactorily solved. Much has, however, been in late years contributed to the subject. Of particular importance, both as regards Mexico and Peru, are the researches of Prof. A. F. Adolphe Baudelier, which have appeared in the publications of various ethnological institutions. Those of Prof. G. Eduard Seier, although of the greatest importance, do not deal with architectural subjects. For the architecture of Mexico and Central America we cite the following

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works: Bandelier, *Report of an Archaeological Tour in Mexico* (Boston, 1884); Peñafiel, *Monumentos del arte Mexicano antiguo* (Berlin, 1890), Maudslay, *Biologica Central-Americana; Archaeology* (London, 1897); Johnson, *The Ruins of Mitla, Royal Institute of British Architects* (1904), Reiss and Stübel, *The Necropolis of Ancon in Peru* (Berlin, 1880-1887), Stübel and Uhle, *Die Ruinenstätte von Trahuanaco im Hochlande des alten Peru* (Breslau, 1892).

NOTE 22 (to page 600).

Like the history of the ancient Mexicans, that of the Incas is very legendary. Their original seats were on the shores of Lake Titicaca, whence migrating northward they conquered Cuzco at a very early period. The figure of Manco Capac, the first Inca, and youngest son of the solar deity, is altogether legendary. About 1200 A. D., their career of conquest, attended by its remarkable social and political organization of the conquered territories, began. Under Tupac Inca Yupanqui (c. 1453), their dominion occupied the chain of the Andes to the Pacific Ocean from the river Maule in Chili, to the northern confines of Ecuador. The zenith of their power was attained during the reign of Huayna-Capac, which began in 1475. In the midst of a civil war between his sons (1531) Pizarro arrived.

